

# Manufacturers Record

## Exponent of America



\$6.50 per Year.  
Single Copy, 20 Cents.

Baltimore, Md.  
DECEMBER 3, 1925

### A Plea for Cancellation of War Debts of the Allies.

W. B. Ivey,  
Attorney at Law.

Lumberton, N. C., November 6.

*Editor Manufacturers Record:*

Permit me to congratulate you most heartily on your recent editorials in the Manufacturers Record advocating the cancellation of the war debts of our Allies. I have never seen a case put more fairly and squarely before the public and with argument, it seems to me, that cannot be successfully refuted. You are doing a distinct service to humanity—one that will inevitably, sooner or later, meet with public approval—and our Government will do the just and honorable thing and cancel the debts of our immediate Allies in the World War.

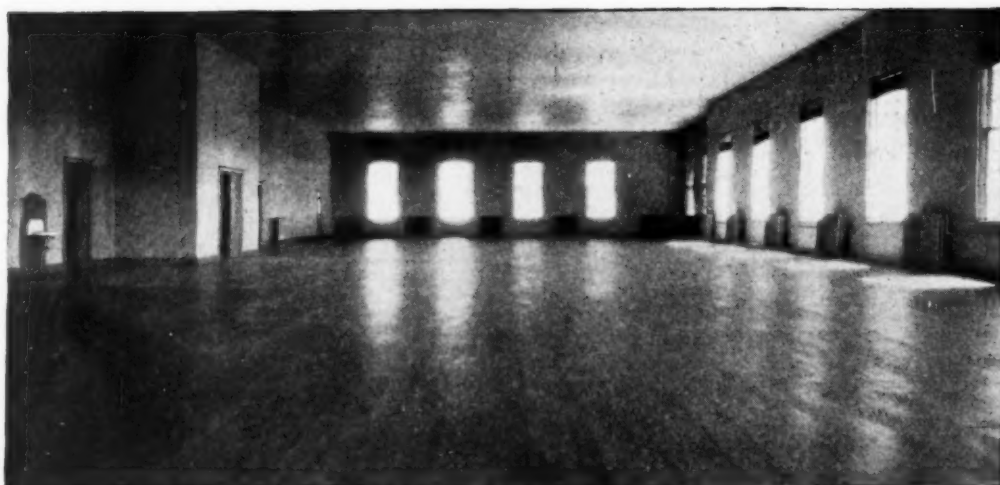
When we entered the war on the side of the Allies we endorsed what had been done by them up until the time we went in and agreed to assume our part of the responsibility—to pursue the fight to a final conclusion and to abide by the results. We did our part admirably until the Armistice was signed, but since that time I am afraid we have been more or less wanting. The total amount of all Allied war debts, together with the number of lives that were sacrificed, is the price we had to pay for winning the war. We are grateful that we did not have to sacrifice as many human lives as did most of our Allies; however, we would gladly have done it had the cause demanded it. Can we justly demand that the Allies pay us money for advances made while they were fighting the cause for us? I do not think so.

I am an ex-service man myself and know something about what it is to have to lay in the muddy trenches day after day and night after night, with not sufficient food to keep you from being hungry nor clothes to keep you warm, and I am thankful that it wasn't any longer. I know what it is to have to leave your "buddie" over there. I know something about the deplorable and bankrupt condition of most of our Allies and at the same time how many millionaires have been made over here as a result of the war. If we do the honorable, just and upright thing, we will cancel the debts of the Allies.

I again congratulate you on your high and honorable position, which may not be popular now, but must eventually be adopted by our nation if we continue to prosper and demand the respect of the civilized world.

W. B. Ivey.

An unretouched  
photograph of  
Essco Flooring  
in the new  
Masonic Temple,  
Amarillo,  
Texas



## Flooring by ESSCO

**I**N the new Masonic Temple at Amarillo, Texas, the flooring is by *Essco*. In such a building as this the flooring must withstand unusually hard wear, and *Essco* Flooring has proved its ability to do that. In addition, its beauty is in complete harmony with the new structure.

These inherent qualities of durability and beauty have been preserved in the manufacture of *Essco* Flooring. It is one of the specialty items of manufacture in the *Essco* mills. From the time it is cut until loaded into cars, every effort is made and

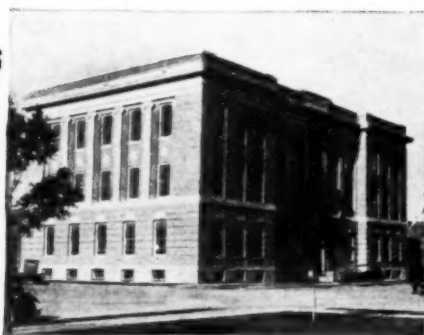
every precaution taken to make *Essco* Flooring a high quality product.

*Each piece of Essco Flooring bears the mark of the expert grader as well as the trade-mark, Essco.*

The architect and the builder of the new Masonic Temple at Amarillo, Texas, have recognized the high quality of *Essco* Flooring by selecting it for the new temple. *Essco* is the ideal flooring for office buildings, banks, schools, hospitals, stores, factories, homes,—wherever flooring is used.

*An interesting file folder containing interesting data on Essco Flooring will be sent, gratis, on request.*

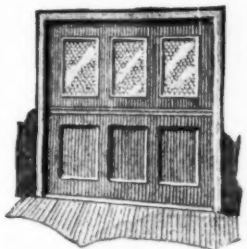
**EXCHANGE SAWMILLS SALES CO.**  
KANSAS CITY, MISSOURI



The new Masonic Temple,  
Amarillo, Texas.  
Herbert M. Green & Co.  
Dallas, Texas, Architects.  
Fred Bone, Amarillo, Tex.,  
Contractor.



# Three prime questions that should be asked about Freight Elevator Doors-



*Peelle Kalamin  
Panelled Door,  
three lights of  
glass in upper  
half.*

**D**OES it answer the purpose?"  
"Is the price right?" "Just  
how long and how well will  
it serve?" These are the three im-  
portant questions that should be  
asked about freight elevator doors.  
Just how satisfactorily Peelle answers,  
is evidenced by the great number of  
industrial buildings throughout  
America that are equipped with  
Peelle Freight Elevator Doors.

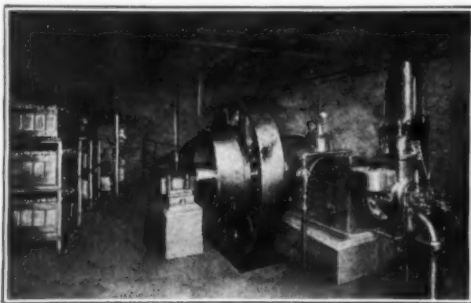
The PEELLE Company, Brooklyn, N. Y.  
Boston • Chicago • Cleveland • Philadelphia  
*and 30 other cities*

**PEELLE**  
**COUNTERBALANCED - TRUCKABLE**  
**Freight**  
**ELEVATOR DOORS**



*The Peelle Catalog,  
containing complete  
details, will be glad-  
ly sent on request.*

50 H. P. Otto  
Oil Engine driv-  
ing Generator  
supplying cur-  
rent direct and  
thru Storage  
Battery at  
Mount Vernon,  
Virginia.



### THE OTTO ENGINE WORKS

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Philadelphia, Pa.

Chicago Branch: 15 South Clinton Street

## ENGINES BOILERS TANKS TOWERS SMOKE STACKS

If you are in the market for the above, get our prices. We are Southern Manufacturers, and not only manufacture, but guarantee our products. We want you to take advantage of our 50 years' experience.

*Write us for further information  
and become a satisfied customer.*

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Dept. H

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405 Bona Allen Building  
ATLANTA, GA.

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TAMPA, FLA.

## ECONOMIZERS

reduce fuel costs by making use of waste exhaust gases to preheat the boiler feed. Patented construction proven by 20 years of service.

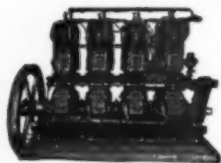
# FOSTER

## SUPERHEATERS

improve engine, turbine and boiler economy by enabling a given amount of steam to do more work. Over 10,000 installations in stationary power plants.

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Dallas Pittsburgh Boston Detroit Chicago San Francisco Boulder Philadelphia Kansas City Los Angeles London, Eng.



### TIPS OIL ENGINES

40-165 H. P.  
for every class  
of service

Manufactured by  
TIPS ENGINE WORKS  
AUSTIN, TEXAS

A B C By-Product Foundry Coke  
A B C By-Product Gas Making Coke  
A B C By-Product Domestic Coke  
LOWEST IN ASH LOWEST IN SULPHUR  
"Alabama's Best Coke"  
HAMMOND IRON CO., Birmingham, Ala.

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Is in Process of Manufacture and will be Ready  
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We will gladly mail you one upon request.

## FLEET-MCGINLEY COMPANY

Master Printers

SOUTH AND WATER STS. :: BALTIMORE, MD.

# Burn all your Coal!

*Eliminate Coke  
In the Ash Pit!*

**W**HY go to the trouble and expense of getting coal into your boiler furnace if you don't burn it up when you get it there?

There is **ONLY ONE ANSWER** to that question and that is to install a stoker with a deep level fuel bed, grate area all active, control of the flow of coal in each retort, and control of flow to the ash dumps. When you write your specifications along these lines you will find that there is only one machine which fills the bill—that is the Detroit Underfeed Stoker.

For **HEAVY DUTY SERVICE** where continuous high coal burning rates are required there is no more economical stoker than the Detroit Multiple Retort Underfeed. It is Built Heavy for Hard Service and Durability. Ask for *Bulletin 153*.

*For smaller boilers use Detroit Side Cleaning Stokers, Single and Double Retort*

**DETROIT STOKER COMPANY**  
153 GENERAL MOTORS BUILDING  
DETROIT MICHIGAN

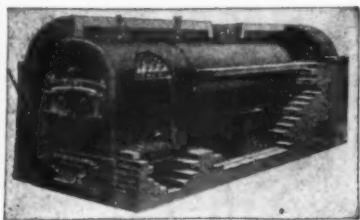


# DETROIT UNDERFEED STOKERS





Acme Smokeless



Acme Firebox



Tico

## TITUSVILLE

All steel A.S.M.E. construction for power or heating.  
Boilers built to special specifications and state laws.  
Send your specifications to us for estimate.

Get your copy of our catalog No. 81.

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Branch Offices:

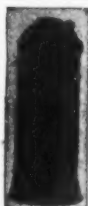
NEW YORK 152 W. 42nd St. WASHINGTON Woodward Bldg. DETROIT No. 833 Wash. Blvd. Bldg.

BUFFALO Marine Trust Bldg.

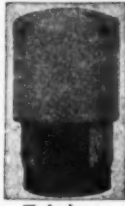
PITTSBURGH Farmers Bank Bldg.

CHICAGO 53 W. Jackson Blvd.

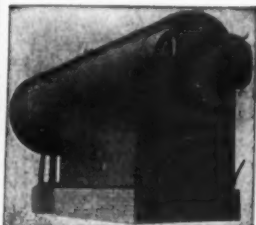
## BOILERS



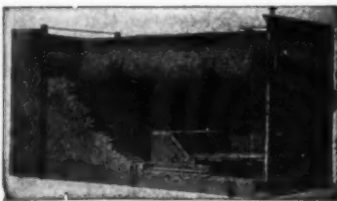
Vertical



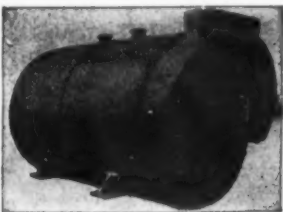
Tubeless Water Heater



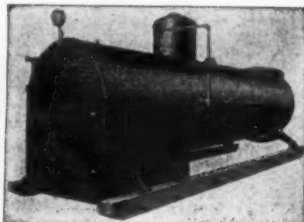
Tico Smokeless



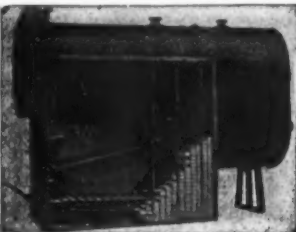
Horizontal Tubular



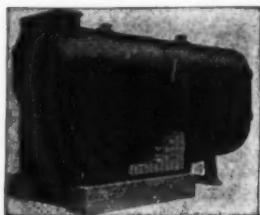
Scotch Type



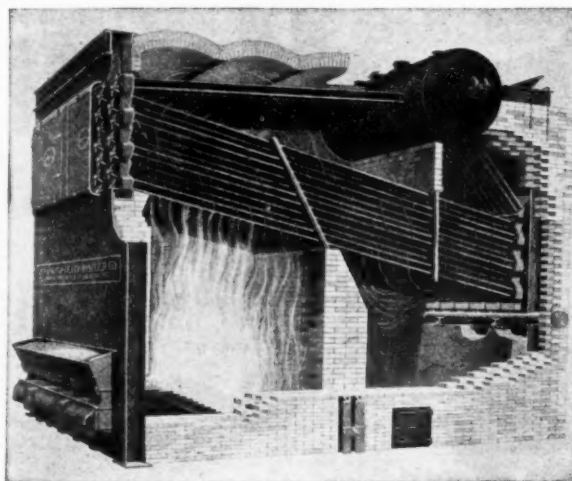
Locomotive



Perfection Smokeless



Perfection



## SPRINGFIELD BOILERS

SECTIONAL—ALL STEEL  
NO STAY BOLTS—NO BENT TUBES  
ONE HAND HOLE COVERS FOUR TUBES  
SIZES TO 3000 H. P.—PRESSURES TO 500 LBS.

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Springfield, Illinois

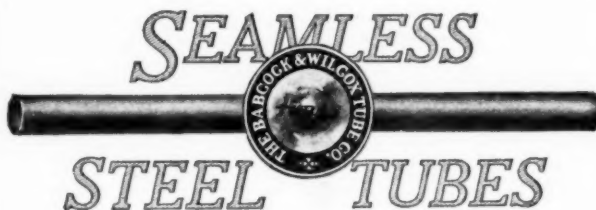


Atlanta Office - - - 905 Healey Bldg.  
Richmond Office - - Va. Ry. & Power Bldg.

## The Babcock & Wilcox Tube Co.

(Pittsburgh Seamless Tube Co.)

Manufacturers of



**For Stationary, Locomotive and Marine Boilers**

For over twenty years, the Company's mills have been making high grade tubes for Babcock & Wilcox boilers. The same careful selection of raw materials, close supervision of manufacture and rigid final inspection are followed whether the tubes are made for Babcock & Wilcox boilers or for any other purpose.

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Philadelphia, Packard Bldg.

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**Builders since 1868 of  
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of continuing reliability**

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CINCINNATI, Traction Building  
ATLANTA, Candler Building  
PHOENIX, ARIZ., Heard Building  
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**Makers of Steam Superheaters  
since 1898 and of Chain Grate  
Stokers since 1893**

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SALT LAKE CITY, 405-6 Kearns Building  
SAN FRANCISCO, Sheldon Building  
LOS ANGELES, 404-6 Central Building  
SEATTLE, L. C. Smith Building  
HAVANA, CUBA, Calle de Aguiar 104  
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**BRICK—CHIMNEYS—CONCRETE  
BOILER BRICKWORK  
The Rust Engineering Co.  
Engineers and Contractors  
BIRMINGHAM, ALA.  
PITTSBURGH—WASHINGTON—NEW YORK**

### The Walsh & Weidner Boiler Co.

*Manufacturers of*

Forged Steel Sectional Header Boilers, Box Header Boilers, Return  
Tubular Boilers, Steel Tanks, Special Steel Plate Construction

Plant: Chattanooga, Tenn.

Sales Offices: New York New Orleans Houston San Francisco  
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**Brass and Copper  
TUBES AND PIPE  
Admiralty and Muntz Metal  
CONDENSER TUBES  
Sheet Brass, Copper  
In Rolls and Strips  
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### Boiler Tubes

*Curved or Straight — Immediate Delivery*

**Boiler Tube Co. of America  
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Makers of the Boiler Tube Company Flat Suspended Arch

### BOILERS - FLUES - REPAIRS CONTRACTORS AND MILL CASTING

Capacity Boring Mill up to 20 ft.  
Lathes up to 62 in. x 25 ft.  
100 Large and Small Machines and Men for New and  
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**Vertical Type A. S. M. E. Code Boilers  
4 H. P. to 80 H. P.**

**HAMBURG BOILER WORKS, INC.  
Hamburg, Berks County, Penna.**

### CHARLESTON DRY DOCK & MACHINE CO.

*Successors to VALK & MURDOCH CO.*

**MARINE AND STATIONARY BOILERS  
Repairs to Steel and Wooden Vessels**

8,000-ton Dry Dock—1,500 and 600-ton Marine Railways  
CHARLESTON, S. C.

## BROWNELL BOILERS

**SIGNIFIES Long Life, Highest Efficiency,  
Low Maintenance and Mechanically correct.  
This accounts for Brownell Boilers being  
specified by leading Engineers and high  
class Architects who demand the best.**

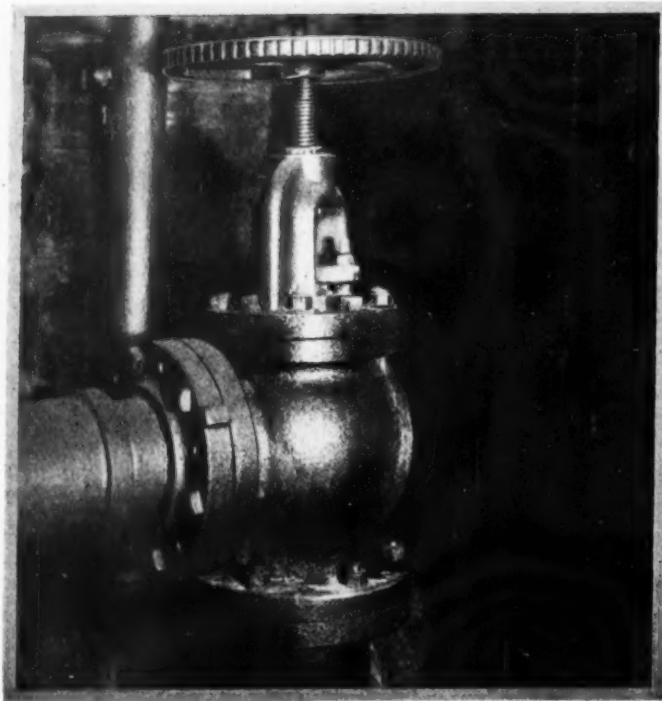


A Contract means little unless the concern  
with which you are dealing is one of known  
reliability. The Brownell Company with its  
68 years of experience as manufacturers of  
**QUALITY PRODUCTS** has 68 years of  
reputation to maintain, therefore, you take  
no risk in sending us your order.

Sales Representatives in All Sections of the Country

**THE BROWNELL COMPANY, Dayton, Ohio, U. S. A.**

Established 1855



*Jenkins Iron Body Angle Valve installed on water line between water softener and feed pumps. Bellman Brook Bleachery Co., Fairview, N. J.*

## 20 years at Bellman Brook Bleachery

Back in September, 1905, many Jenkins Valves were installed in the power plant then erected by the Bellman Brook Bleachery Co., at Fairview, N. J. Today they are still in service and good for years to come.

Now standard  
throughout plant

Jenkins Valves are now the standard in this large bleachery for use in the textile processes as well as in the old and new power plants. 20 years of experience have served to confirm the wisdom of the original choice.

This same choice is a wise one for you, too. Standardizing on "Jenkins throughout" means a plant free from costly repairs and frequent replacements.

There are genuine Jenkins Valves for practically every requirement. Make sure you see the Jenkins "Diamond" mark.

### JENKINS BROS.

80 White Street.....New York, N. Y.  
524 Atlantic Avenue.....Boston, Mass.  
133 No. Seventh St.....Philadelphia, Pa.  
646 Washington Boulevard...Chicago, Ill.

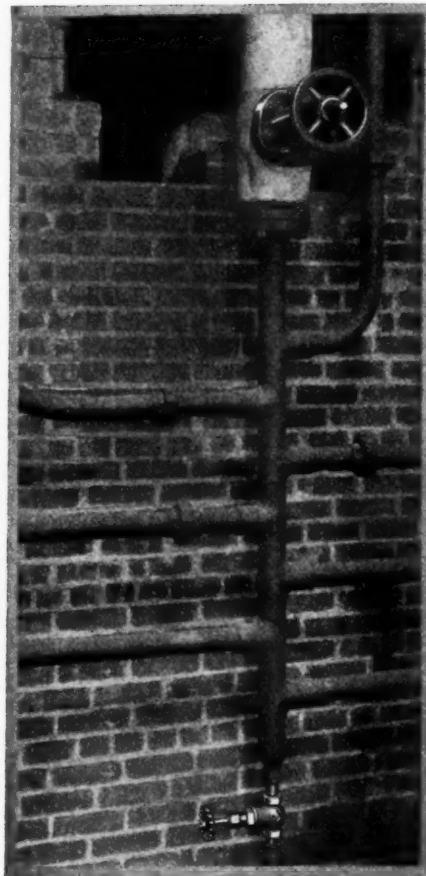
### JENKINS BROS., LIMITED

Montreal, Canada      London, England

### FACTORIES

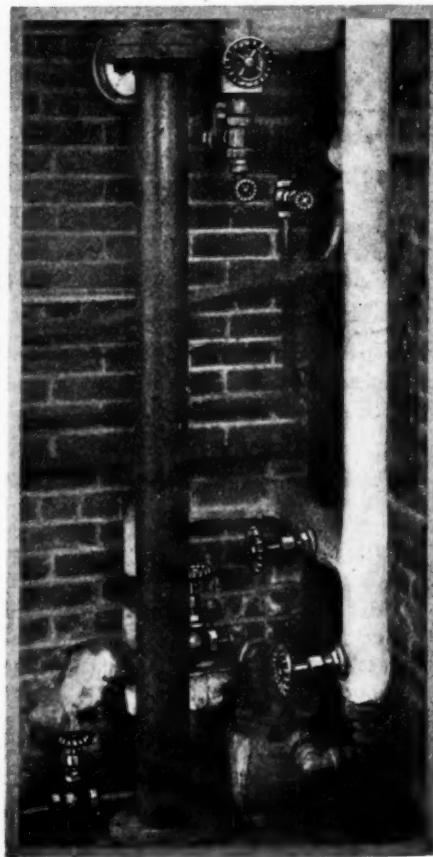
Bridgeport, Conn.      Elizabeth, N. J.  
Montreal, Canada

Always marked with the "Diamond"  
**Jenkins Valves**  
SINCE 1864




*(Above)—Jenkins Iron Body Gate Valve on steam line, Extra Heavy, and Jenkins Extra Heavy Bronze Globe Valve on drain. Installed on soot blower, new power house Bellman Brook Bleachery.*

*(Below)—Jenkins Standard Bronze Globe, Extra Heavy Bronze Globe and Bronze Horizontal Swing Check Valves on drain on main steam line—new Bellman Brook power house.*





 **THERMOLITH**   
 Reg. U. S. Pat. Off. Pat. Pndg.  
 The All-Temperature Fire Cement  
**"Makes the Weakest Point the Strongest"**  
 Write for Literature  
**HARBISON-WALKER REFRACTORIES CO.**  
 World's Largest Producers of Refractories  
 Pittsburgh, Pa. U.S.A.

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**EXCELSIOR**  
**MILLED FIRE CLAY**  
 ALL STANDARD AND SPECIAL REFRACTORY SHAPES  
**ALABAMA CLAY PRODUCTS CO.**  
 BIRMINGHAM ALABAMA

**FIRE BRICK CONDUITS**  
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 (INCORPORATED)  
 Dependable Clay Products Since 1861  
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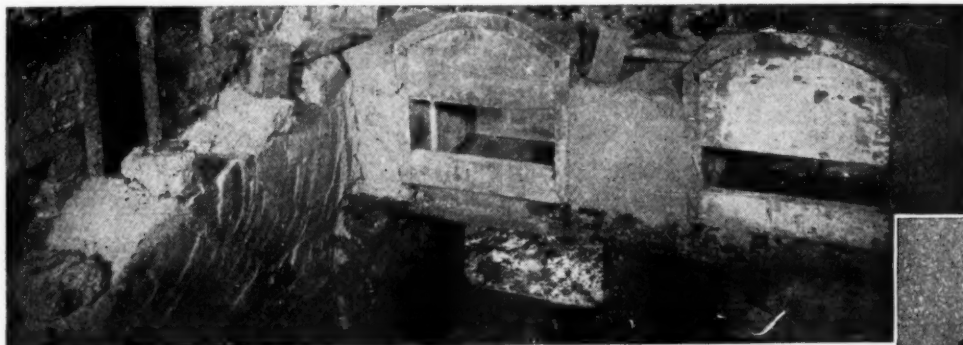
**FIREBRICK**  
**THE ROBINSON**  
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**AKRON-OHIO**  
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**"Mount Savage"**  
**Fire Brick**  
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**SUPER AMERICAN DIXIE**  
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**DIXIE FIREPROOFING COMPANY**  
 CARRS STATION, GEORGIA

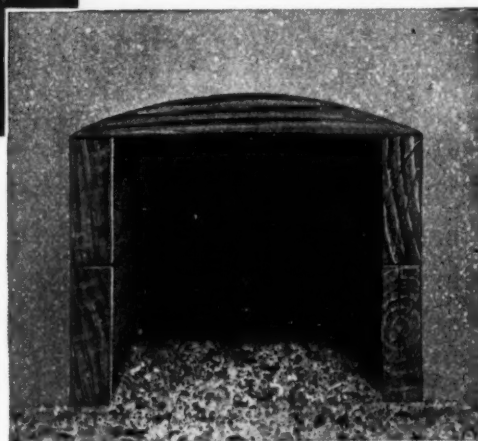
**WALSH FIRE BRICK AND SHAPES**  
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**FIRE BRICK**  
 for both Oil and Coal fired Furnaces  
 We have perfected a special brick which will give maximum service for each fuel.  
**FACE BRICK BUILDING BRICK**  
**SAVAGE MOUNTAIN**  
**FIRE BRICK COMPANY**  
**FROSTBURG MARYLAND**



### Building Permanency

into the side walls and door arches at left by ramming up with Ramtite! Below, a finished door arch—not a crack or a joint with Ramtite.



## —and this is the Door Arch that RAMTITE built—

**J**UST because RAMTITE is so handy for quick, lasting patching of furnace settings, do not forget that building new settings, or any part of them, with RAMTITE will end the patching and renewing of linings for a long time to come.

And it is a time saver, too, on new construction, for any man can build your linings with a mallet—note the door arch at the right.

Send coupon for all the facts about this superior, plastic, ready-to-use "barreled fire brick." Write today.

**THE S. OBERMAYER CO.**

2563 W. 18th Street, Chicago, Ill.,  
 Established 1874. Factories, or  
 stocks carried, in principal cities.

The S. Obermayer Co., 2563 W. 18th St.  
 Chicago, Ill.

Please send to my address below, your  
 new 20-page free bulletin with 43 illustrations  
 and valuable data on furnace linings.

Name .....

Firm .....

Address .....

City ..... State .....

## To Know Them Is to Use Them!



Lunkenheim Re-grinding Globe Valve, Inside Screw, Union Bonnet.

Invariably when a valve user becomes thoroughly familiar with the unparalleled service features of

**LUNKENHEIMER**  
**Bronze Regrinding Valves**  
he becomes a user, and an enthusiastic booster.

The remarkable success of these valves can only be attributed to the universal satisfaction which they are giving wherever they are installed.

The wide variety of patterns includes Globe, Angle, Cross and Check Valves; Union Bonnet Type  $\frac{1}{8}$  to 4 in., Outside Screw and Yoke Type  $1\frac{1}{2}$  to 6 in.; working steam pressures up to 300 pounds.

Once installed, they stay tight, and require very little attention. If, after long and severe service, the seat faces become worn, they can be reground without removing valves from the pipe lines. This feature makes it unnecessary to carry a large stock of replacement parts, and aids materially in keeping down maintenance expense.

The complete line is fully described in booklet No. 517 FB. A copy will be sent upon request, without any obligation.

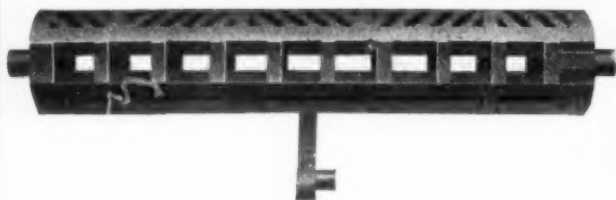
Lunkenheim Distributors, located in all commercial centers, will promptly fill your requirements, from stock.

**THE LUNKENHEIMER CO.**  
"QUALITY"

CINCINNATI, OHIO, U. S. A.  
NEW YORK CHICAGO BOSTON LONDON  
EXPORT DEPT. 129-135 LAFAYETTE ST., NEW YORK



faces makes the valve as good as new.  
3-37-62  
Regrinding the Seat



## THOMAS True Semi-Steel W. S. D. GRATE BARS

**SAVE** their cost in the amount of fuel saved in a few weeks.

They keep the fire at the highest state of efficiency at all times, never failing, giving more steam.

**ELIMINATE** cleaning periods, grate bar mishaps and shut downs. True Semi-Steel withstands the action of high temperatures several times as long as gray iron.

Write for  
detailed  
information

**THOMAS GRATE BAR CO.**  
BIRMINGHAM, ALA.

## ROBERTS FILTERS FOR CLEAN WATER

Ideally adapted for installation in textile mills; raw water ice plants; laundries, and for all industrial or municipal requirements.

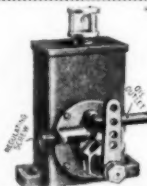
"Write for Descriptive Literature"

**Roberts Filter Manufacturing Co.**  
DARBY (PHILA.) PENNA.

## WATER SOFTENING and FILTRATION PLANTS

**INTERNATIONAL FILTER CO.**

WORKS AND GENERAL OFFICE  
333 WEST 25th PLACE  
NEW YORK PITTSBURGH CHICAGO SAN FRANCISCO LOS ANGELES  
CANADIAN INTERNATIONAL FILTER CO., LTD., TORONTO



The Sure-Shot Lubricator

### FORCE-FEED LUBRICATION

with all its many advantages, will be realized to the full, by installing on steam engines, steam pumps, air and ammonia compressors, etc.

#### Practical Force-Feed Oil Pumps

Guess-work entirely eliminated; oil bills reduced 30 to 50 per cent.

Write for Bulletin No. 30 and get our prices.

**McCULLOUGH MFG. CO.,** Minneapolis, Minn.  
Sold by leading supply houses

## ICE MAKING and REFRIGERATING PLANTS

Ammonia  
Absorption



Ammonia  
Compression

**COLUMBUS IRON WORKS CO.**  
COLUMBUS, GEORGIA

### THE VILTER MANUFACTURING CO.



832 Clinton St.  
MILWAUKEE, WIS.

Ice Making  
Refrigerating Machinery  
Poppet Valve and  
Corliss Engines  
SPECIAL MACHINERY

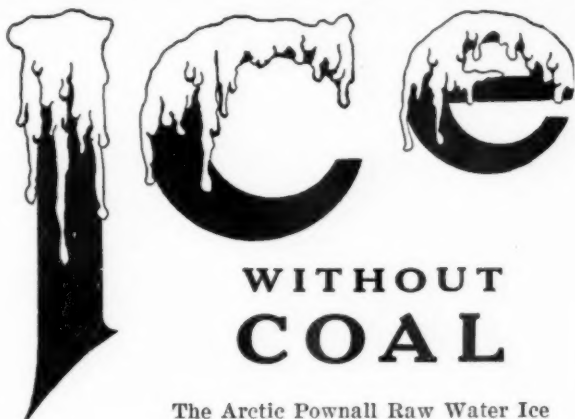
# Vogt

### PRODUCTS

REFRIGERATING AND ICE  
MAKING MACHINERY—  
WATER TUBE & HORIZONTAL  
RETURN TUBULAR BOILERS  
DROP FORGED STEEL VALVES  
& FITTINGS—OIL REFINERY  
EQUIPMENT—Ask for Bulletin.

**HENRY VOGT MACHINE CO.,** Manufacturers, Louisville, Ky.





## WITHOUT COAL

The Arctic Pownall Raw Water Ice Making System makes pure, crystal clear ice, using any motive power.

The ice produced is superior to that made by any other system.

Every block is uniform in size and weight, and the tops are absolutely level.

This system also requires less labor than any other; and while the initial cost is higher, the cost of making ice with this system is far less than any other, consequently greater returns on the investment are assured.

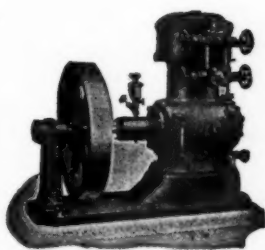
It will pay you to write us.

**THE ARCTIC ICE MACHINE CO.**  
CANTON, OHIO, U. S. A.



It's no puzzle to the buyer of a refrigerating machine to know where Frick equipment stands.

Investigate for yourself: write for illustrated "Ice and Frost" Bulletins.



**Frick Company**  
MANUFACTURERS OF REFRIGERATING MACHINERY  
SINCE 1892

Distributors in 40 Cities



## It is a fact that

YORK Mechanical Refrigeration is adaptable to every commercial or private need for economical refrigeration.

For the Hotel, Hospital, Club, Ice Manufacturer, Butcher, Baker, Confectioner, Dairyman, Bottler, Ice Cream Manufacturer and Restaurateur, the YORK is a profitable investment.

If you are interested in or connected with any of the above activities, it will pay you to investigate the YORK and learn how it will pay you dividends.

Upon request, we will furnish you with a list of YORK users, right in your own neighborhood.

**YORK Manufacturing Company**  
Ice Making and Refrigerating Machinery Exclusively  
**York, Penna.**

YORK MFG. CO., York, Penna.

I understand there is a YORK MACHINE for every refrigeration need. Tell me how one will build profits for me. There is no obligation on my part.

NAME .....

BUSINESS .....

ADDRESS .....



## Introducing The New Round Form Columbia Recording Thermometers and Gauges

These instruments are new not only in shape but have many valuable new and exclusive features which have been developed as a result of more than 75 years' experience.

Here are some of the outstanding features of Columbia Recording Thermometers and Gauges.

The Recording Systems (bulb, line and spring) are interchangeable. That permits keeping a separate recording system in stock, at small cost, and quickly and easily inserting the new system while the old one is being repaired, should repairs be necessary due to accident. No other instrument has this feature.

Complete instructions are lithographed on the chart plate, so they cannot be lost. Another feature found only in the Columbia.

Time Punch shows when and how often readings are taken. Still another exclusive feature of the Columbia.

Should these instruments be thrown slightly out of calibration by rough handling, any slight inaccuracies can be quickly corrected in your factory by means of an adjusting device, which device can be sealed against tampering.

The chart is held in place by a non-removable clamp, preventing loss of clamp.

Automatic Pen Release lifts Pen Arm away from chart automatically when the door is opened, thus preventing arm from being strained.

Fitted with an Inverted Pen Arm with tension adjusting device and non-corrosive glass pen.

Case is furnished in dull enamel for wall mounting or for flush mounting. The hinged door seats on the inside, against a durable rubber ring, and is pressed against same by means of a screw clamp, making the case absolutely moisture, fume and dust proof.

Has 10" chart with extra large recording area.

Columbia Recording Thermometer is made in 3 types—mercury, gas and vapor tension—for 24, 12 and 7 day periods in any range up to 1000°F. The Recording Gauge is made for all pressures and for vacuum.



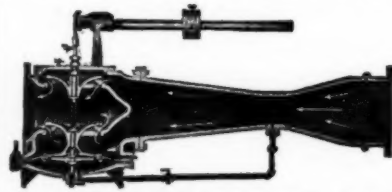
Columbia  
Recording Gauge

**AMERICAN SCHAEFFER & BUDENBERG CORP.**  
Brooklyn, N.Y.

\*Boston    Cleveland    Salt Lake City    Philadelphia  
\*Buffalo    Detroit    \*Seattle    \*Pittsburgh  
\*Chicago    \*Los Angeles    Tulsa  
\*Stock carried at these branches.



## SIMPLEX:-



**S**IMPLICITY  
SERVICE  
SATISFACTION

## RATE OF FLOW CONTROLLER

Bulletin No. 28 tells the story

**SIMPLEX VALVE & METER CO.**

310 FIDELITY BLDG., PHILADELPHIA, PA.

Southern Representative: W. J. Neville, Candler Bldg., Atlanta, Ga.



**T**

With two close-by warehouse stocks of the "TRUMBULL" line, we are admirably prepared to supply Switches with every safety feature. Motor Starting, Meter Service and externally operated Entrance Switches.

Write or Wire  
Your Needs!

**Anderson's, Inc.**  
Motor Repair Works

**Power  
Installations**

Rewinding, Repairing, Rebuilding Electrical Machinery

**NEW AND REBUILT MOTORS**  
Nashville, Tennessee

## Sturtevant Electric Motors

FOR ALL PURPOSES

Direct and Alternating Current  
Single and Polyphase  
Generators and Generating Sets

**B. F. Sturtevant Company**  
Hyde Park, Boston, Mas.

## ALLIS-CHALMERS MFG. CO.

MILWAUKEE, WIS., U. S. A.

DESIGNERS AND BUILDERS OF

Steam Turbines, Electrical Machinery, Steam, Gas  
and Oil Engines, Centrifugal Pumps, Crushing  
& Cement Machinery, Etc.

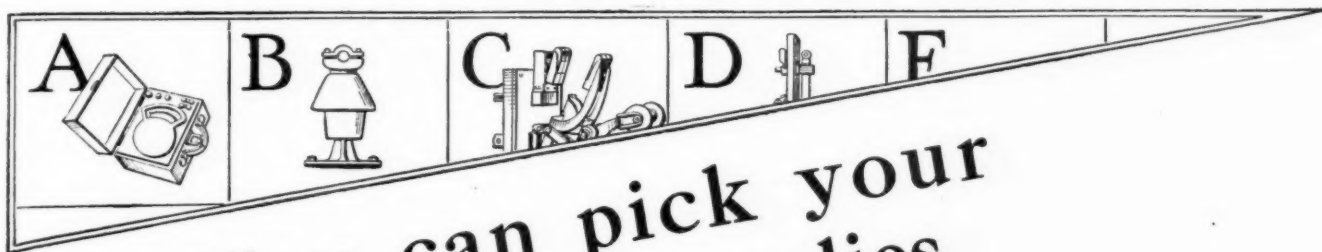


**IMPERIAL WELDING  
AND CUTTING EQUIPMENT**  
OXY-ACETYLENE PROCESS

Full line for all requirements; also automatic  
acetylene generators. Write for catalog.

Imperial Brass Mfg. Co., 503 S. Racine Ave., Chicago

# From A to Z\*



You can pick your  
electrical supplies  
—out of this list

Ammeters  
Bus Bar Supports  
Circuit Breakers  
Disconnecting Switches  
Equalizers  
Fuses  
Generators

Hangers  
Insulators  
Junction Boxes  
Knife Switches  
Lamps  
Motors

Nipples  
Oiled Silk  
Panels  
Quick Delivery  
Resistors  
Square D Switches

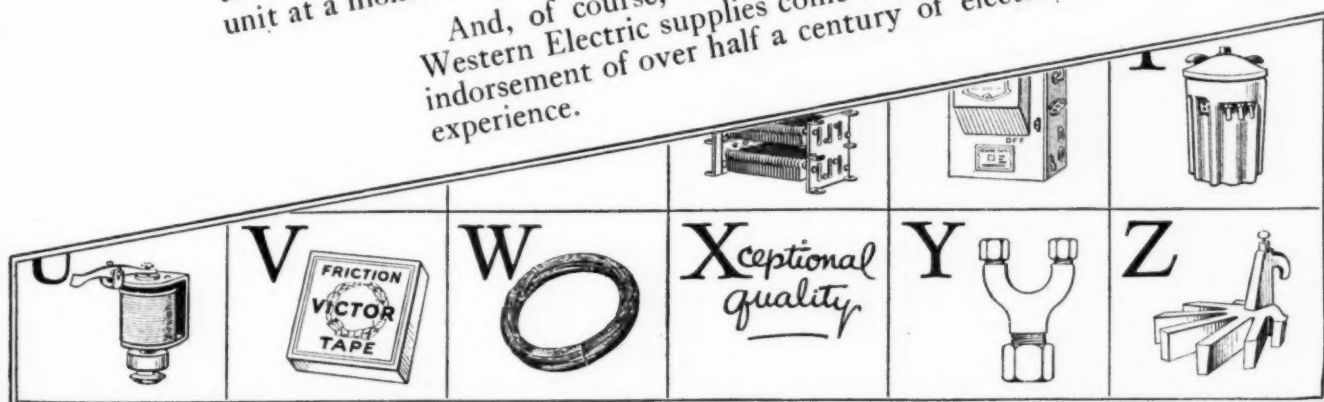
Transformers  
Undervoltage Attachments  
Victor Tape  
Wire  
X ceptional Quality  
Y-Connectors  
Zincs, Battery

The man who buys power apparatus faces two questions:

“Where can I buy it?” It may be a welcome fact to know that Western Electric stocks cover every power apparatus requirement from A to Z. The Western Electric Year Book, listing hundreds of items in simplified order, makes it possible to locate a desired power apparatus unit at a moment's notice.

“When can I get it?” No less important is the answer to this question—that Western Electric carries ready for immediate shipment large stock of motors, control, switches and other power apparatus. Quick delivery from a nearby distributing house is a big feature of Western Electric service.

And, of course, the biggest feature is that Western Electric supplies come to you with the indorsement of over half a century of electrical experience.



\*—but “from A to Z” isn't all. Look in the Western Electric Year Book for whatever power apparatus you may need. You'll find it quickly.

# Western Electric

QUALITY ELECTRICAL SUPPLIES

Offices in 54 Principal Cities



## TWO VERY POPULAR ABOLITES

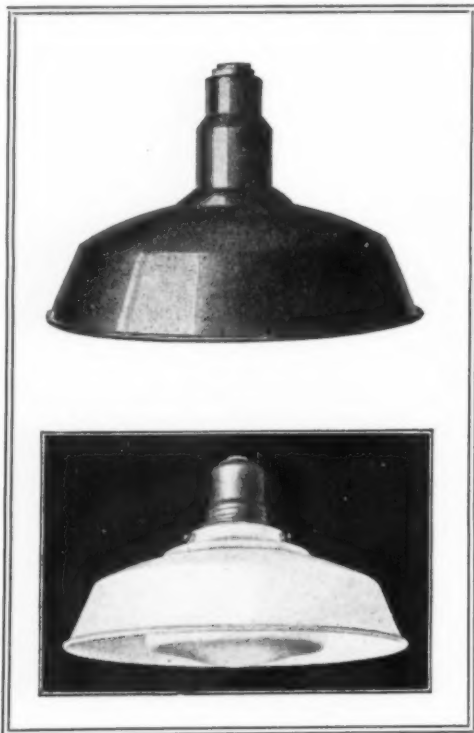
The R. L. M. ABolite, shown at the top of the accompanying panel, is meeting with success in many varied industrial installations.

It is furnished in either a blue or green exterior with white interior. A special vitreous enamel is used which is very durable and will not discolor.

The "Glass Steel" ABolite shown below is furnished in white vitreous enamel both interior and exterior and carries a glass diffusing bowl to soften the light. This unit is highly desirable for school, office building and textile mill installations.

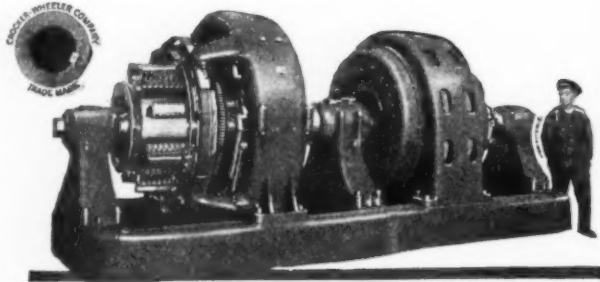
*Our Catalog illustrates many other equally popular ABolites. Ask for Catalog M-178.*

**The National Screw & Mfg. Co.**  
AB Products Division CLEVELAND, OHIO



RELIABILITY

## CROCKER-WHEELER



THE above photograph shows a Crocker-Wheeler Motor-Generator Set consisting of a 1400 K. V. A., 2200 Volt, 60 Cycle Synchronous Motor driving a 1000 K.W., 250 Volt, D. C., 720 R. P. M. Generator—recently built for the Pittsburgh Steel Products Co., Pittsburgh, Pa.

We are prepared to furnish D. C. and A. C. Motors from  $\frac{1}{2}$  H. P. up and D. C. and A. C. Generators and Motor-Generator Sets from 100 Watts up.

**CROCKER-WHEELER ELECTRIC MFG. CO.**  
AMPERE, NEW JERSEY

*Branch Offices in Principal Cities.*

*Foreign Distributor: International Standard Electric Corpn.*

## MOTORS & GENERATORS



Rebuilding  
Our  
Specialty

Equipment does not go entirely to pieces when it wears out. Much of it shows no strain at all.

Careful investigation, replacement and complete overhauling will save you many dollars.

Thirty-two years experience rebuilding and repairing electrical equipment places us in a position to know the repairs needed to make old equipment like new.

Consult us.

**Chattanooga**  
ARMATURE WORKS.  
Chattanooga, Tenn.  
New and rebuilt motors for sale





## Poor light puts production to sleep—*Good lighting wakes it up*

The well-lighted factory is the pace-maker in its field—and enjoys costs appreciably lower than do competitors. This has been proved by engineers and works managers in every branch of industry.

Yet four of every five plants are poorly lighted—have lighting that makes production costs excessive.

Good artificial lighting in your plant will give a 15% increase in production or its equivalent in lowered manufacturing costs.

To learn if your plant is properly lighted, get in touch with your local electric service company, electric league or club. Without any obligation to you, they will study your lighting needs and recommend improvements that will effect economies in your plant.

*Remember: 200 watt lamps with proper reflecting equipment spaced ten feet apart give excellent lighting.*

**INDUSTRIAL LIGHTING COMMITTEE**

NATIONAL ELECTRIC LIGHT ASSOCIATION

29 WEST 39TH STREET

NEW YORK





## SAMSON CORDAGE WORKS

BOSTON, MASS.

Mills at Shirley, Mass. and Anniston, Ala.

Manufacturers of braided cord in all sizes, colors and kinds of braid, including

Sash Cord  
Clothes Line  
Awning Line  
Masons' Line  
Shade Cord

Trolley Cord  
Arc Lamp Cord  
Signal Cord  
Dumb Waiter Rope  
Etc.

Special cords for special purposes  
Glazed Cotton Twine

All cord bearing the trade-mark of Samson and the Lion is made of extra quality stock, is carefully inspected, and is guaranteed free from imperfections of braid or finish.

### Samson Spot Cord



Trade-Mark Reg. U. S. Pat. Off.

## To the Minute! DETEX "ECO"

### Portable Watchclock System Gives Exact Time Registration

There are many plants and institutions where watchmen must visit certain spots at exact times. For such requirements the Detex ECO Portable Watchclock System is uniquely fitted. It records the time of registration practically to the minute. No other watchclock built is so precise.

In addition to its ultra-precision, it is a durable clock and makes a beautifully clear-cut punch record, which cannot be imitated, altered or tampered with in any way. For plants requiring such exact time recording for 6 to 20 stations, the ECO has no rival.

Write for literature describing  
this unusual watchclock system

DETEX WATCHCLOCK CORPORATION  
75 Varick Street NEW YORK 4146 Ravenswood Ave. CHICAGO 22 Beach Street BOSTON



#### Other DETEX Watchclock Systems

**PATROL Portable**—The latest and most versatile of all portable watchclock systems. Equally satisfactory for 1 or 100 stations.

**NEWMAN Portable**—The best known and most extensively used watchclock system in the world, 1 to 30 stations.

**ALERT Portable**—Ideal for plants requiring up to 30 stations. Initial cost moderate—maintenance extremely low.

**BOSTON [Magneto Type]**—for large plants desiring records of a number of watchmen on one dial

### U. S. Oak Tanned Leather Belting

Having our own belt shop, we can guarantee our product and our deliveries.

### Hippo Waterproof Leather Belting

Unexcelled for use in damp and steamy places.

BELTING CEMENT and DRESSING  
OLD LEATHER BELTING RENOVATED and MADE OVER

MILL SUPPLIES, TOOLS and MACHINERY  
Large and Complete Stocks

REED & DUECKER, Memphis, Tenn.

### ↓ SOUTHERN DEPARTMENT ↓

WATCHMANS  
CLOCKS

APPROVED  
by all  
UNDERWRITERS  
—  
Write  
for  
Particulars

FIRE  
EXTINGUISHERS

GORDON LEWIS—402-A Grant Bldg.—Atlanta, Ga.

## TEST SPECIAL RUBBER BELTING

Reduces your power transmission costs  
Write for Belt Engineering Booklet

NEW YORK BELTING & PACKING CO.  
NEW YORK-CHICAGO-PHILADELPHIA-PITTSBURGH-BOSTON-ST. LOUIS-SAN FRANCISCO

### For Efficiency Always

## CHESAPEAKE STITCHED CANVAS BELTING

Manufactured from 32-oz. duck and designed to give the best results in actual service. Made for all conditions of power transmission—inside or outside—wet or dry. Chesapeake Belting has been giving satisfactory service for over 30 years.

Write for printed matter.

CHESAPEAKE BELTING CO.  
BALTIMORE, MD.



## BALTIMORE BELTING CO.

Manufacturers of

OAK TANNED LEATHER BELTING,  
LACED LEATHER AND SUPPLIES

BALTIMORE, MD.





**Belt Conveyor Handling Coal  
in a Steel Plant**

## Enduring Satisfaction with Webster Material Handling Equipment

**W**HEN you provide Webster material handling equipment for your plant, you get a service of known value. You are not speculating on unusual, untried construction features of questionable durability and operation.

For nearly half a century Webster material handling equipment has made good in many industrial plants, cutting handling costs and increasing profits. Mechanically correct in design and dependable in operation, built for years of hard service—that means lasting satisfaction.

Webster engineers have given years of study to correct material handling methods and can ably assist in selecting equipment to meet your particular requirements. Let them help you.

# **The WEBSTER MFG. COMPANY**

**4500-4560 CORTLAND STREET, CHICAGO**

*Southern Representatives*

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## TRIBLOC CHAIN HOIST

**Send for  
Catalog 6-B**



Ford Chain Block Co., 2nd & Diamond Sts., Philadelphia, Pa.

## CRANES and ELECTRIC HOISTS



**"Load Lifter" Electric Hoists**  
500 Pounds to 5-ton capacity  
Standardized Heavy Duty  
Electric Traveling Cranes  
Send for Catalogues

**ALFRED BOX & COMPANY, INC.**  
Witte and E. Ontario Sts., Philadelphia, Pa.

**EFFICIENT      DEPENDABLE  
RUGGED**  
**CHESAPEAKE CRANES**  
Chesapeake Iron Works

Baltimore

Maryland

**There is MORE POWER in  
THAT GOOD GULF GASOLINE  
AND SUPREME AUTO OIL**

*Look for the Sign  
of the Orange Disc*

**GULF REFINING CO.**





## Molybdenum Steel Balls for Severe Service

Ball Bearings, under certain operating conditions, subject the balls to a slight spinning action. Molybdenum Steel Balls are well adapted for this peculiar condition, due to the extreme toughness of Molybdenum Steel which gives the balls a cleaner and denser structure and consequently a greater and more uniform hardness. Result—increased load-carrying capacity and longer bearing life.

Do you need this added capacity in your equipment?

**MARLIN-ROCKWELL CORP.**  
Gurney Ball Bearing Division  
JAMESTOWN, N. J.

18339

# GURNEY BALL BEARINGS

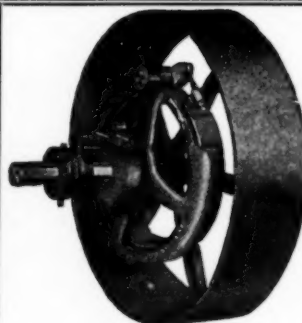
## Goldens' Foundry & Machine Co. COLUMBUS, GEORGIA

MANUFACTURERS OF

### MACHINE MOULDED PULLEYS HANGERS                      SHAFTING

Couplings, Pillow Blocks, Floor Stands, Collars, Etc.

Send for Price List and Discount Sheet



### A Firm Grip

The asbestos lining in the flexible band of the Caldwell Friction Clutch is your sure guarantee of a firm grip on the friction ring and a steady power-pull with a minimum of slippage.

Simplicity of adjustment—a single screw, and ease of operation—one lever, make the Caldwell the intelligent choice for difficult service.

Send for Catalog

W. E. Caldwell Co., Incorporated  
270 E. Brandeis St., Louisville, Ky.

*Caldwell*  
FRICTION  
CLUTCHES

 PULLEYS
 HANGERS

The **W<sup>T.B.</sup>OOD** Line  
SONS CO.



CLUTCHES

IN THE FINAL ANALYSES—CAST IRON PULLEYS will correct the pulley troubles you have been having, but the use of CAST IRON pulleys of proper design in the initial installation would have PREVENTED the trouble.

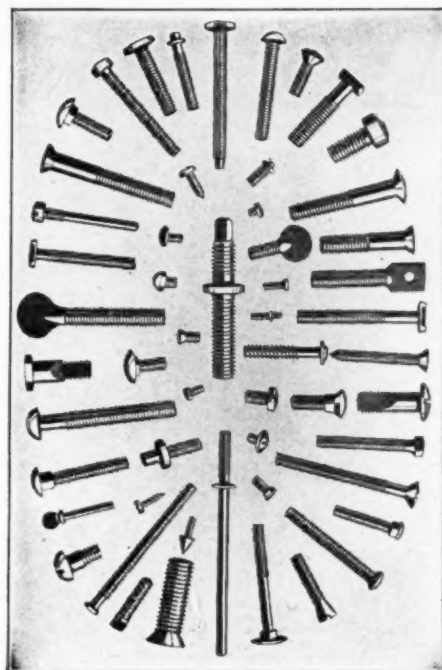


**T. B. WOOD'S SONS CO.**  
Chambersburg, Pa.  
CAMBRIDGE, MASS. GREENVILLE, S. C.

Motor Pulleys, Flexible Couplings, Speed Reducers, and the "U. G." Automatic Belt Contactor for Short Center Drives.

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**POWER TRANSMITTING MACHINERY**



### MACHINE SCREWS SQUARE AND HEXAGON NUTS

Specialists in upset work.  
Write for prices, if special submit samples  
advising as to quantity required.

**THE PROGRESSIVE MANUFACTURING CO.**  
TORRINGTON, CONN.



### SILENT CHAIN DRIVES

MORSE CHAIN CO., ITHACA, N.Y.

Consult the Morse Engineer in your territory

Positive as gears, flexible as belts, combining the advantages of both without the disadvantages of either.

Atlanta, Ga.	Cleveland, Ohio	Pittsburgh, Pa.
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### Flexible Shafts and Equipments

"Trade Mark Registered"

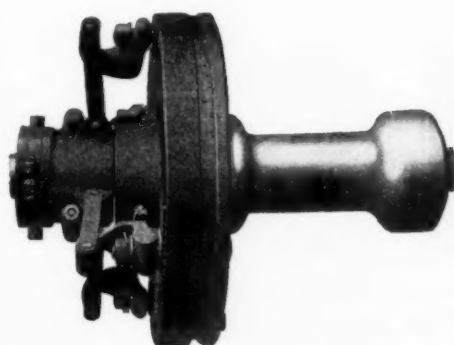
Flexible shaft equipments for grinding, polishing, drilling, rotary filing, scratch brushing, power screw driving and nut setting.

Write for circulars and prices.

N. A. STRAND & CO.

5001-5009 N. Lincoln St.

Chicago, Ill.



Ball Bearing Sleeve Clutch

## KINNEY FRICTION CLUTCHES

Kinney Clutches can be used on driving or driven end of a belt chain or gear drive exchanging long sleeve for short hub, can be used as a cut off coupling.

The Kinney is the simplest Friction Clutch made. There are no wooden blocks, fibre discs or other parts to wear out and be replaced.

Atmospheric conditions do not affect the tension of the adjustments.

**KINNEY CLUTCHES must make good or we will.**

**KINNEY MANUFACTURING COMPANY, BOSTON, MASS.**

## HOW AND WHY

### The Bemis Bag Company

### Use The Productimeter

The following is from a performance survey on Productimeters made by the H. P. Gould Company. The facts disclosed are unbiased and the result of an independent investigation:

"We are one of the largest cotton and burlap bag manufacturers in the world. We manufacture entirely to orders, many of which call for carload lots. Therefore, it is essential both that we get an accurate count on the production for each order, and with a view to maximum efficiency, that the count be obtained as easily and quickly as possible.

"For this we chose Durant Productimeters in preference to other counting machines because they are equipped with two registers. This is a great convenience and time saver besides preventing errors, because an exact tally for both the day's production and the production on each job or order is shown at the same time by means of the two registers."

Write for the Productimeter Catalog and further information.

(3149)

**DURANT** Manufacturing Company

622 Buffum St.  
Milwaukee, Wis.

Productimeters can be applied to your business with profitable results. They furnish quickly and accurately the figures that are essential to exact production control.



## BRASS AND BRONZE CASTINGS

### MACHINE BRONZE

Solid or Cored Bars

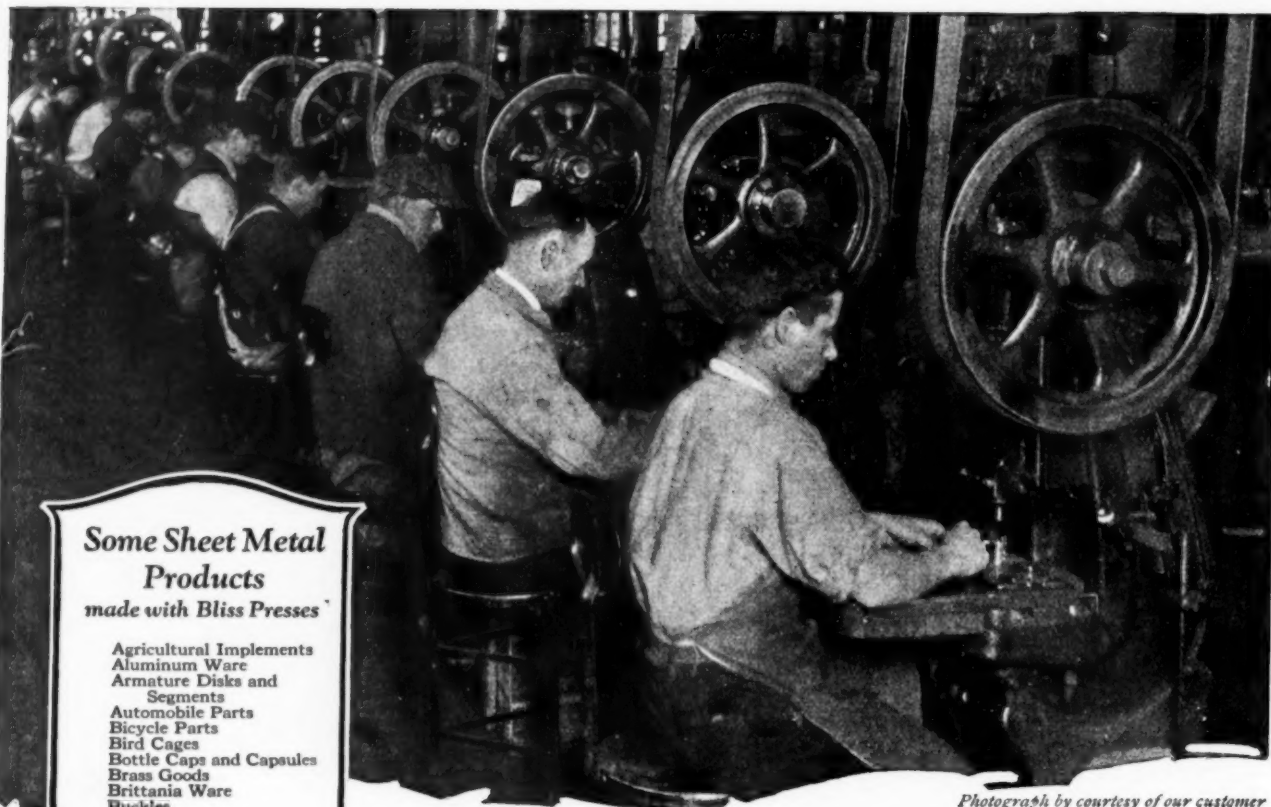
Manufacturers of

Moccasin Self-Oiling Bearings

Ask for Catalog

**MOCCASIN BUSHING CO.**  
CHATTANOOGA, TENNESSEE.





*Photograph by courtesy of our customer*

### Some Sheet Metal Products made with Bliss Presses

Agricultural Implements  
Aluminum Ware  
Armature Disks and  
Segments  
Automobile Parts  
Bicycle Parts  
Bird Cages  
Bottle Caps and Capsules  
Brass Goods  
Brittania Ware  
Buckles  
Burners  
Butter Tins  
Cash Registers  
Cigarette Boxes  
Clocks  
Coal Hods  
Collapsible Tubes  
Cooking Utensils  
Cornice Work  
Cuspidors  
Cutlery  
Dental Instruments  
Dinner Pails  
Drip Pans  
Door Knobs  
Drop Forgings  
Druggists' Tinware  
Dust Pans  
Electrical Goods  
Elevator Buckets  
Enamel Ware  
Expanded Metal La  
Fish Cans  
Forks  
Fruit Cans  
Fry Pans  
Furniture (Metal)  
Gas Fixtures  
Gas Ranges  
Gun Parts  
Hammers  
Hardware  
Harness Trimmings  
Hinges  
Horse Shoes  
Jewelry  
Kitchen Boilers  
Kitchen Utensils  
Lamps  
Lanterns  
Lard Pails  
Locks  
Match Boxes  
Meat Cans  
Medals  
Metallic Ceilings  
Metal Lath  
Metal Radiators  
Musical Instruments  
Oil Cans  
Oil Stoves  
Perforated Metal  
Paint Cans  
Paint Tubes  
Petroleum Cans  
Pick-eyes  
Pieced Tinware



Since 1857

## A busy line-up

Bliss Presses in action always present a mighty busy scene—delivering a constant stream of finished parts frequently ranging upwards of many thousands per hour. Here, for example, we see a battery of eight Bliss No. 18 and two No. 19 Inclinable Presses forming and blanking small parts used in the manufacture of electric light fixtures. The parts are stamped from strips of sheet steel, brass, copper, fibre, and pressboard varying from .010 in. to 1/4 in. in thickness.

The large variety of the work being turned out by this equipment is typical of the adaptability and flexibility of Bliss Presses. Frequently a single Bliss Press is used for many different operations on a variety of sheet metal and composition parts—an opportunity for economical production that goes far in reducing manufacturing costs.

Investigate the possibilities of Bliss equipment in your plant.

**E. W. BLISS CO.** BROOKLYN  
N. Y., U. S. A.

Factories: BROOKLYN, N. Y. HASTINGS, MICH. SALEM, O. CLEVELAND, O.

Sales Offices: DETROIT CLEVELAND CHICAGO PITTSBURGH PHILADELPHIA

ROCHESTER CINCINNATI NEW HAVEN

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# BLISS

PRESSES - DIES - SPECIAL MACHINERY

No. 528





*Quality Right—Service Unexcelled*



# Tennessee Special Tool Steel



A high grade carbon tool steel, with a well earned reputation for quality and reliability. All principal sizes in stock, either annealed or unannealed. Send for stock list.

Other special products are  
Tennessee Special Welding Steel and  
Tennessee Special Threading Steel.

Let us quote on your requirements for Special Steels, also on standard products such as Rails and Accessories, Structural Shapes, Plates, Bars, Axles, Forgings, Steel Castings.

## Tennessee Coal, Iron & Railroad Company

General Offices: Brown-Marx Building, Birmingham, Alabama

BRANCH OFFICES:

Boston  
Buffalo

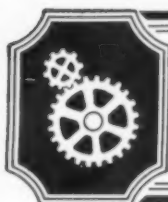
Chicago  
Cincinnati  
Cleveland

Denver  
Detroit  
New Orleans

New York  
Philadelphia  
Pittsburgh

St. Louis  
St. Paul

Pacific Coast Representatives: UNITED STATES STEEL PRODUCTS COMPANY, San Francisco, Seattle, Portland, Los Angeles.  
Export Representatives: UNITED STATES STEEL PRODUCTS COMPANY, New York City.



## CONTRACT WORK WANTED

Castings Special Machinery Forgings Machine Work Etc.



### DROP FORGINGS

Are often Cheaper than Castings—Always far Superior

Our Engineering Department will be glad to give you the benefit of over twenty years experience should you wish suggestions as to use of materials or proper design.

Drop Forgings of Every Description  
Made from Carbon and Alloy Steel,  
Bronze or Copper

**RICHMOND FORGINGS CORPORATION**  
(ACCA) RICHMOND, VA.

### Small DROP FORGINGS TO ORDER

**THE SCRANTON FORGING COMPANY**  
SCRANTON, PA.

### HIGH GRADE MALLEABLES

Malleable Iron Castings of every description. True to pattern—free from blemishes, scale or shrinkage cracks.

**THE MAL-GRA CASTINGS CO.**  
CAMBRIDGE CITY, IND.

### Sheet Metal, Sheet Steel and Angle Iron Work of all types

*Difficult Shapes and Fabricated Parts*

**THE KIRK & BLUM MFG. CO.**  
2849 Spring Grove Ave. CINCINNATI, OHIO

### AVOID DRAINAGE TROUBLES

By Using

#### EGYPTIAN MADE INLETS



Let us furnish the Castings on that next contract. Our Castings are guaranteed to meet your specifications and give satisfactory service.

**EGYPTIAN IRON WORKS**  
427 S. 17th Street  
MURPHYSBORO, ILLINOIS

### Copper, Brass and Bronze

## CASTINGS

5-10 and 15% Phosphor Copper

For

Blast Furnaces  
Tin and Sheet Mills  
Hoop and Rod Mills  
Machinery Builders  
Shipbuilders  
Railroad  
Car Journal Bearings  
and Engine Castings

Est. 1887

### KEYSTONE BRONZE COMPANY

General Offices

39th Street, PITTSBURGH, PA.

### JANNEY & COMPANY - Montgomery, Ala.

#### GRATE BARS, ENGINES

Sash Weights, Ash Pit Doors and Dumps,  
Kiln Wheels, Boiler Fronts, Castings,  
and Machinery Repairs.

### High Grade Castings

Made by experienced engineers and founders

#### SAW MILL AND RAILROAD WORK

High quality, semi-steel packing rings, valve bushings, pistons, cylinder heads, etc.

Also, gray iron castings for brake shoes, grate bars, boiler fronts, fire doors, etc.

#### MUNICIPAL CASTINGS

Manhole Rings and Covers, Storm Inlets, Meter Boxes, etc.

#### BRASS CASTING SPECIALTIES

Car brasses, stick brass, locomotive journals, etc.

*Estimates furnished from specifications.*

**The Farr Co., Meridian, Miss.**

**BLACK LEAD  
CRUCIBLES**  
And Graphite Specialties

**QUALITY REFRACTORIES**

**HEAT INSULATION**  
Standard and Special Shapes

**J. H. GAUTIER & COMPANY**  
Jersey City, N. J.

FOR 66 years  
manufacturers  
of high grade  
crucibles.

Your melting prob-  
lems will receive  
the careful analysis  
of the leading engi-  
neers of the  
industry.

Consult us freely.

For 36 Years } **HILL** { has meant highest  
reputation in  
Foundry Supplies

Facings, Plumbago, Core Compound,  
Parting and Every Foundry Requirement.

Write for prices

**THE HILL & GRIFFITH CO.,**

Factories and Offices:  
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BIRMINGHAM, ALA.

Warehouse:  
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## RIVER AND HARBOR FLOATING EQUIPMENT OF STEEL CONSTRUCTION

Correct Design and Superior Construction

Steel Barges Steel Hulls Wharf Boats  
Derrick Boats Tow Boats  
Maneuver Boats Car Ferries  
Dredges and Pontoons

**MIDLAND BARGE COMPANY**  
MIDLAND, PENNSYLVANIA, U. S. A.  
LAUNCHING WAYS ON THE OHIO RIVER

## ELECTRIC STEEL CASTINGS

Weighing from 1 lb. to 500 lbs. each

Quantity Production A Specialty

Nickel, Chrome and Other Alloy

Quick Delivery

Inquiries Solicited

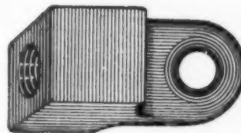
**CRUCIBLE STEEL CASTING COMPANY**  
LANSDOWNE, DELAWARE COUNTY, PA.

## RICHMOND STRUCTURAL STEEL CO.

ORNAMENTAL IRON—GREY IRON CASTINGS

**RICHMOND, VA.** BRANCH  
NORFOLK, VA.

# MARION



## Invisible Wall Tie

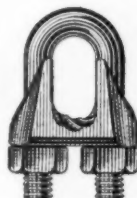
Ties the forms and means insurance of water-tightness. It means a fast, clean job with minimum labor.

THIS  
MARK



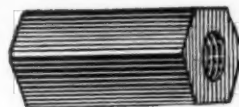
—means that it's made of  
Marion certified malleable  
iron offering great resistance  
to shock, having high elastic  
limit, resisting oxidation,  
wears better, is free from  
slag holes, shrinkage cracks,  
etc., and is not subject to  
fatigue or crystallization.

Plain  
Clip



for Wire  
Rope

Also used for joining square or distorted bars.  
Universally used and recommended. Holds  
tight under all conditions.



## Hex Couplings

Unbeatable for bolting forms true to line and  
for joining round bars. Quickly applied by  
unskilled labor with perfect results.

We Make

**CERTIFIED MALLEABLE  
CASTINGS**

Specify Them

Send for a descriptive circular

## MARION MALLEABLE IRON WORKS

Marion, Indiana

Malleable Iron Castings of every  
description





For Better Roofing  
and Siding—

**KEYSTONE**  
Rust-resisting Copper Steel



*Plant of the General Iron Works Company, Denver, Colorado, recently erected by  
The Stearns-Roger Mfg. Company of Denver.  
KEYSTONE COPPER STEEL used exclusively for Roofing and Siding*

**DURABLE——SAFE——RELIABLE**

Successful architects, engineers, and contractors use Keystone for greater rust-resistance. The builder of the splendid plant illustrated above selected Keystone quality, because it offered superior service and satisfaction, with economy. The copper steel alloy assures more lasting construction.

**American Sheet and Tin Plate Company**  
General Offices: Frick Building, Pittsburgh, Pa.

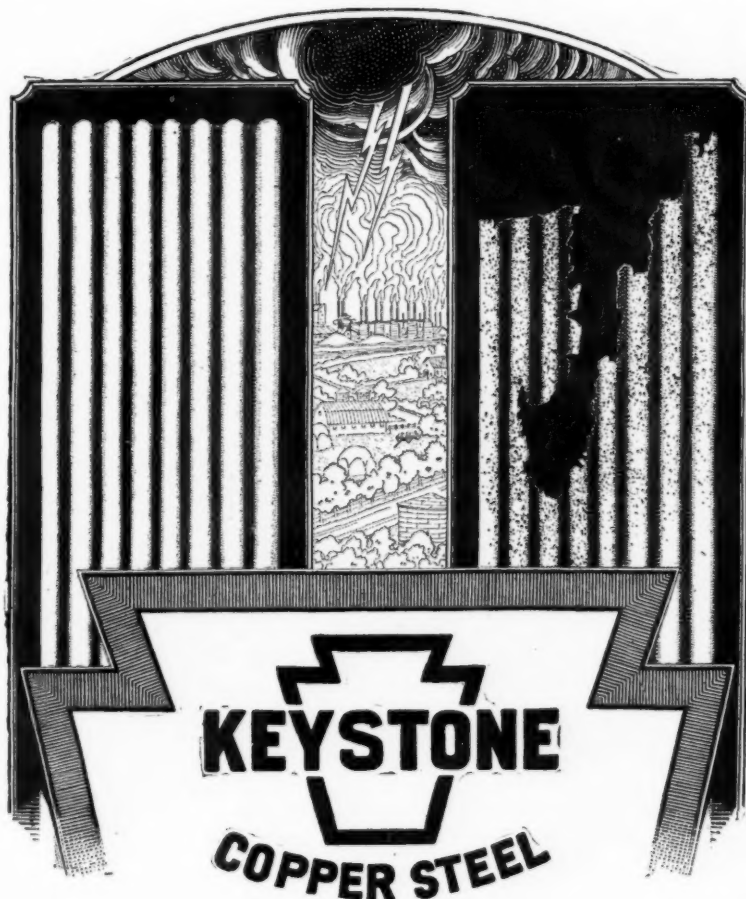
MANUFACTURERS OF

Sheet and Tin Mill Products for all purposes—Black Sheets, Galvanized Sheets, Tin and Terne Plates, Special Sheets for Stamping, Corrugated and Formed Roofing and Siding Materials, Electrical Sheets, Wellsville Polished Steel Sheets, Automobile Sheets in all grades, Deep Drawing Sheets, Stove and Range Sheets, Black Plate, Etc.



**H**ERE is *real evidence* for you! The two sheets pictured below were exposed to the weather, side by side, for exactly the same length of time. These Sheets were identical in manufacture—the same gauge, and from the same heat, the only difference being the alloy of Copper.

LEFT—  
Steel Sheet alloyed  
with copper



RIGHT—  
Same Steel NOT alloyed  
with copper

When resistance to rust is important, specify for Keystone quality. It signifies not only the increased durability imparted by the addition of Copper, but the *super-quality* that comes from experience in its manufacture. Supplied in Black Sheets, Galvanized Sheets, Culvert and Flume Stock, Formed Roofing and Siding Products, Terne Plates, Etc.

## American Sheet and Tin Plate Company

General Offices: Frick Building, Pittsburgh, Pa.

### DISTRICT SALES OFFICES:

Chicago Cincinnati Denver Detroit New Orleans New York Philadelphia Pittsburgh St. Louis  
Export Representatives: UNITED STATES STEEL PRODUCTS COMPANY, New York City  
Pacific Coast Representatives: UNITED STATES STEEL PRODUCTS COMPANY, San Francisco, Los Angeles, Portland, Seattle

**GALVANIZED,  
BLACK  
AND ALL  
FINISHES**

**QUICK SHIPMENT**

**THE  
SHEET METAL  
MANUFACTURING  
COMPANY**

**YOUNGSTOWN  
OHIO**

**SERVICE**

**PRICE**

**QUALITY**

**ALL FORMS OF  
GALVANIZED  
AND PAINTED  
ROOFINGS**

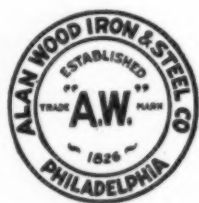
**SHEET STEEL**

## ALAN WOOD IRON AND STEEL CO.

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DALLAS  
LOS ANGELES

Philadelphia, Pa.

NEW YORK  
BOSTON  
SEATTLE



**PIG IRON—BILLETS, BLOOMS AND SLABS  
SHEARED PLATES  
ROLLED STEEL FLOOR PLATES  
BLUE ANNEALED STEEL SHEETS**

## Sloss-Sheffield Steel & Iron Co.

BIRMINGHAM, ALA.

### Foundry Iron

Sloss Noala Etowah  
The Leading Southern Brands

### Foundry and Domestic Coke

Sunbeam, Egg and Nut

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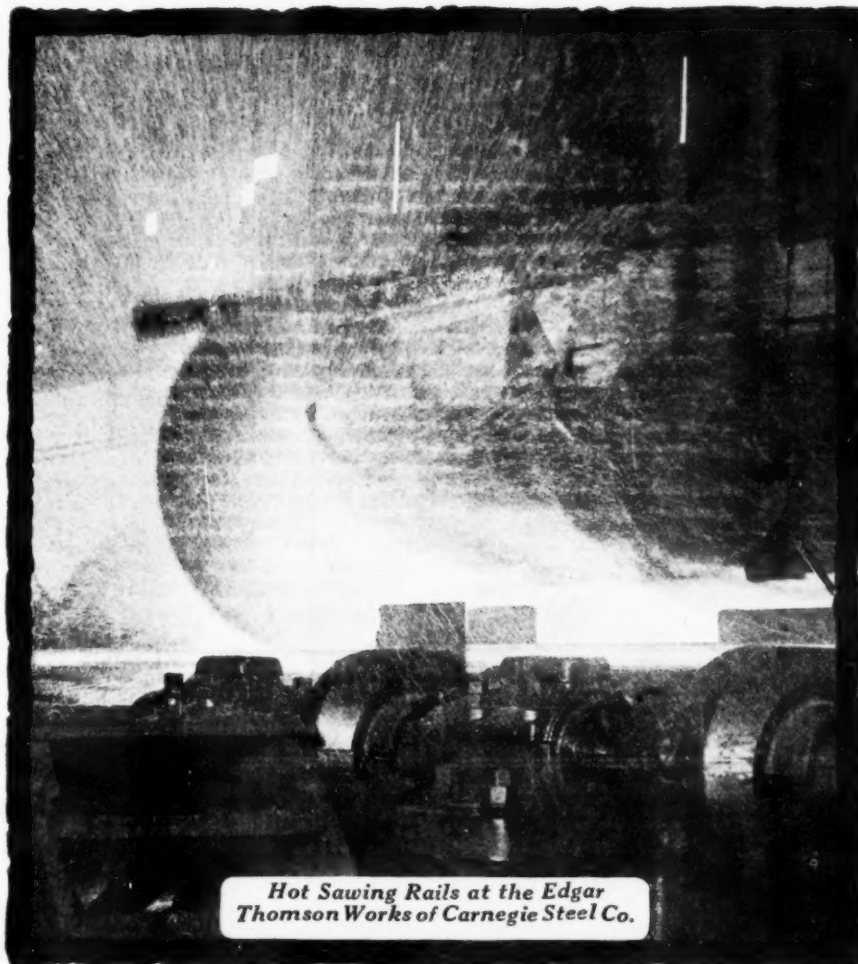
Washed and Run-of-Mines

### Crushed and Sized Slag

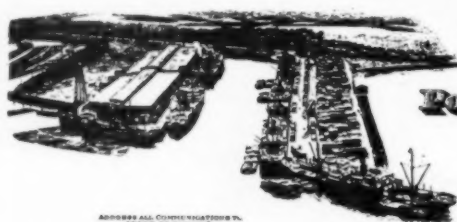
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**SLOSS SERVICE SATISFIES**





**'CARNEGIE'**  
the word to remember  
when you want  
Good Steel



CHESTER THORNE, President  
W. FRANK ANDREWS, Secretary  
C. W. ORTON, General Manager

C. W. ORTON, President  
W. FRANK ANDREWS, Secretary  
C. W. ORTON, General Manager

**PORT OF TACOMA**

Cable Address: "PORT TACOMA"

Tacoma, Washington  
November 6, 1925

Mr. B. C. Collier, President  
Cement-Gun Company, Inc.  
Allentown, Pennsylvania

My Dear Mr. Collier:

In prompt reply to yours of October 31st, requesting information as to the present condition of our Gunite piling, I beg to advise that the piles are in exactly as good a condition as the day they were driven, or for a period of nearly five years.

While we have only made an examination of the piles once by a deep-sea diver, we did go over them very thoroughly during the month of June of this year, when we have our extreme low tides and a very careful examination of each pile did not show any deterioration or cracks and feel that the life of these piles is indefinite, although we have always figured on a seven-year period to prove this, believing that any deterioration or cracking should appear within this period.

We assure you that we are very optimistic over the life of these piles and were we to build another pier today, we would use them the same as in the pier we have now constructed and are operating.

Yours very truly,



CWO:MB

PORT OF TACOMA

By *M. J. Mayo*  
Manager

## Engineers and Owners of Structures in Southern Waters!

Note the statements in this letter regarding the present condition of plain wooden piles covered with "GUNITE" which were driven five years ago.

The Teredo on the Pacific Coast is as severe as in Southern waters.

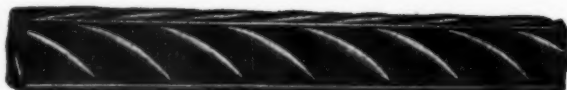
**"GUNITED" WOODEN PILES** positively resist the Teredo; are fire-proof; are economical in first cost; and insure a permanency not otherwise obtainable.

Write for full information regarding the many advantages offered by the use of "GUNITE" in all kinds of marine structures.

**Cement-Gun Co., Inc.**  
ALLENTOWN, PA.

New York Chicago Pittsburgh Phoenix  
Salt Lake City San Francisco Seattle

### GULF STATES STEEL COMPANY BIRMINGHAM, ALA. DEFORMED BARS



ROUNDS AND SQUARES FOR CONCRETE REINFORCING

Other Products

BASIC OPEN HEARTH STEEL AND WIRE PRODUCTS:  
Nails, Staples, Smooth Wire, Bale Ties, Barb Wires, Woven Wire Fence, Wire Rods, Billets and Merchant Bars.

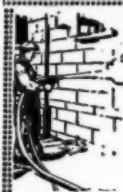
### TENNESSEE COPPER CO. COPPERHILL, TENN.

Producers and Shippers

of

**High Grade Iron Sinter**

Analysis and samples on request.



### CEMENT GUN CONSTRUCTION CO.

THE ORIGINAL

Cement-Gun Work Contractors

Do not confuse us with the man who makes the machine

WE DO THE WORK

Exclusive Contractors and Engineers  
Estimates and information cheerfully given.

537 So. Dearborn St. Pittsburgh Branch  
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### O. Z. WRENN & COMPANY

Reinforcing Bars, Structural Steel  
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CHARLOTTE, N. C.



### REINFORCING STEEL

Plain Rounds; Deformed Rounds  
Plain Squares; Deformed Squares  
Twisted Squares

Works at  
Madison, Ill., and Alton, Ill.

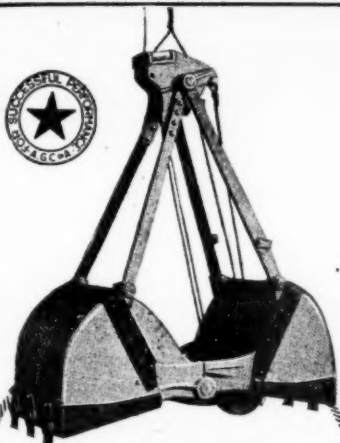
LACLEDE STEEL CO.  
ST. LOUIS, MO.

### REINFORCING BARS

Deformed. All Sizes. Rounds & Squares 1/4" to 1 1/4"  
New Billet Stock. Straight or Bent.

Warehouse or Mill Shipments.

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CLAMSHELL BUCKETS  
ROAD BUILDING EQUIPMENT  
STEEL FORMS  
FOR CONCRETE CONSTRUCTION  
STANDARD BUILDINGS  
TRANSMISSION TOWERS  
STRUCTURAL STEEL  
WATER COOLED APPLIANCES  
FOR HIGH-TEMPERATURE FURNACES  
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All of the above products are manufactured in the well-known Blaw-Knox Shops under skilled engineering supervision. Company pride enters into every Blaw-Knox Product in an endeavor to make it the "best of its respective kind."



## Our Frank Advice Is the Contractor's Gain

A consultation with Blaw-Knox Engineers on every job is worth something to you, and doesn't cost you a cent.

You will be told frankly whether or not Blaw-Knox Steel Forms are applicable to your work.

If Blaw-Knox Forms are used—the work will be made easier and your profits will be proportionately greater.

You can lose nothing—and gain much—by consulting with men who have the experience of designing and building steel forms for thousands of concrete jobs.

What do you intend to build?

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NEW YORK—30 E. 42nd St.  
BALTIMORE—Bayard & Warner Sts.  
BIRMINGHAM—Brown-Marx Bldg.

CHICAGO—Peoples Gas Bldg.  
DETROIT—Lincoln Bldg.  
BUFFALO—Genesee Bldg.

CLEVELAND—516 Union Bldg.

*Representatives in principal cities.*

# BLAWFORMS



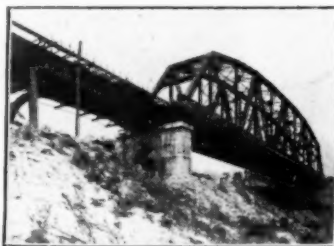
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EMPIRE BUILDING — 71 BROADWAY — NEW YORK

*Manufacturers of Steel Structures of all classes particularly*  
**BRIDGES AND BUILDINGS**

Also Steel Barges for Harbors and Rivers, Steel Towers  
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*Monongahela Southern  
 R. R. Co.*



*Bridge over Pine Run  
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Export Representative: United States Steel Products Co., 30 Church Street, New York

## WATCH US

Established 1833

### Grainger & Company

(Incorporated)

North Tenth Street, Louisville, Ky.

## STRUCTURAL STEEL AND IRON

Plain and Fabricated, for All  
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**Use Grainger Steam Pumps  
 For All Purposes**

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Steel and Concrete Bridges  
 Structural Steel furnished and erected

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**Structural Steel  
 FOR  
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Capacity 1000 Tons Per Month  
 3000 Tons in Stock

**The Largest Steel Fabricators in the Carolinas**

**Snead Architectural Iron Works**

LOUISVILLE, KY.

**STRUCTURAL STEEL  
ORNAMENTAL IRON**

Immediate Shipment of all  
Standard and Bethlehem Shapes  
EITHER PLAIN OR FABRICATED

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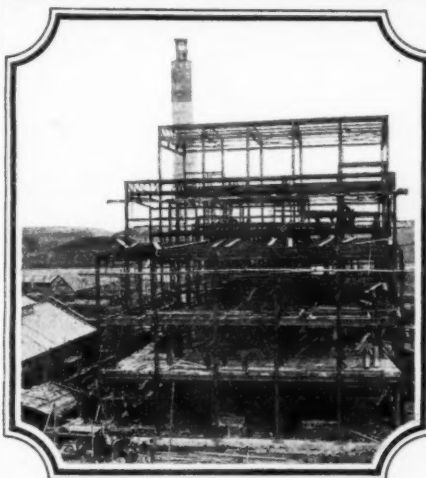
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**BELMONT IRON WORKS**

Engineers Contractors Exporters

**Structural Steel**

Complete Industrial Buildings



Sugar Factory, Meiji Sugar Co., China  
The Dyer Co., Cleveland, Engrs. and Bldrs.

REVOLU-  
TIONS

One Kind  
or Another

CHINA  
doesn't  
stick all to-  
gether to the

ancient. She is building  
of Steel with the rest of  
the world.

**Virginia Bridge & Iron Co.**

Roanoke Memphis Birmingham Atlanta  
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Works at Roanoke Memphis Birmingham



**Virginia Bridge**  
STEEL STRUCTURES

**DIETRICH BROTHERS**

Structural and Ornamental Iron and Steel Works

Large Stock of Standard and Bethlehem Shapes

**CONCRETE REINFORCEMENTS**

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**CONVERSE BRIDGE & STEEL CO.****STRUCTURAL STEEL**

For

Industrial Buildings, Mines, Refineries,  
and the Building Trade

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**ROANOKE IRON & BRIDGE WORKS, Inc.**

Structural and Ornamental Iron

Wrought Steel Fences

Gray Iron Castings

FROM 1 TO 10,000 LBS.

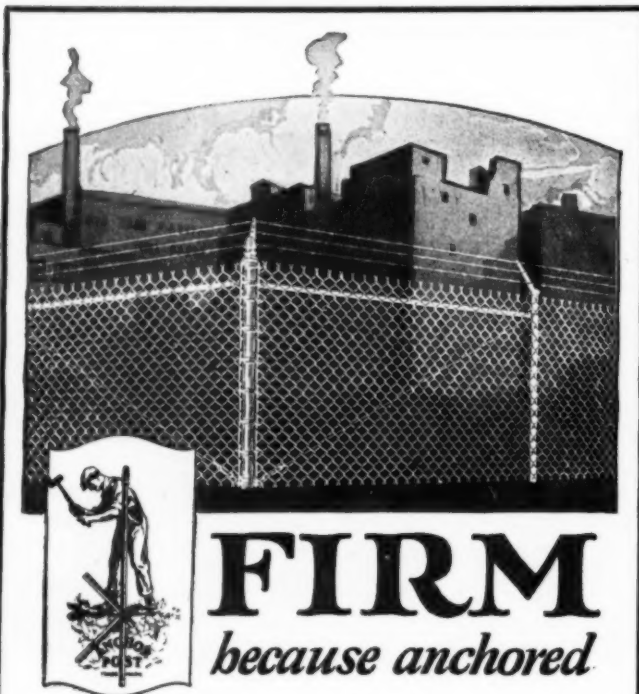
Write for Estimates

ROANOKE, VA.

**Steel Bridges & Buildings**

**McClintic-Marshall Co.**  
Pittsburgh





## FIRM

*because anchored*

**STRAIGHT** as an arrow an Anchor Fence will stand—year after year. No loose nor uprooted posts. No posts out of alignment.

For Anchor fence posts are *drive-anchored*—held in the ground as a tree is held by its roots. Their steel anchors, driven deep into the soil, have a tremendous “grip”. Even a force strong enough to bend or break a post itself will not disturb the anchors in the least.

This feature of Anchor construction; the use of U-bar posts, with their exceptional strength; and a chain link fabric of rust-resisting copper-steel wire, Galvanized After Weaving; all go to make up a fence which will give years of service with very little or no maintenance expense.

Complete information regarding Anchor Fences and their enduring construction will be furnished gladly and promptly by the nearest Anchor office or sales agent.

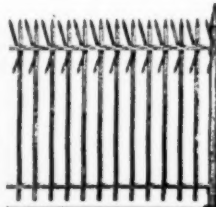
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*Sales Agents in Other Cities*

**Anchor**  
*Galvanized After Weaving*  
**Fences**

## For Fencing:—

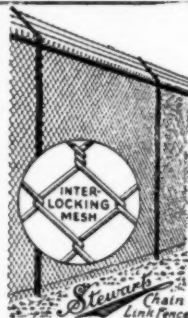


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FOUNDRIES  
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INDUSTRIAL  
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MUNICIPAL  
PROPERTIES  
of All Kind—

You Will Profit By Using



**STEWART'S**  
IRON OR CHAINLINK WIRE FENCE

*Write for Catalog of Designs*

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525 Stewart Block CINCINNATI, O.  
“The World's Greatest Iron Fence Builders”



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*Manufacturers of*  
**IRON AND WIRE BANK RAILINGS AND WINDOW GUARDS**

WE ALSO MANUFACTURE  
BRASS, STEEL AND  
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BRASS AND STEEL WIRE WORK OF EVERY DESCRIPTION  
Absolute Prompt Delivery

Bank Work Elevator Enclosures Elevator Cabs  
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ALL GRADES OF WIRE CLOTH MADE OF ALL KINDS OF WIRE

**WIRE**

WIRE NETTING  
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**CLOTH**

WIRE FENCING  
WIRE WORK

**THE NEW JERSEY WIRE CLOTH COMPANY**  
MAIN OFFICE: TRENTON, NEW JERSEY

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*A complete and experienced organization in office, factory and field insures the continued maintenance of highest quality and the prompt and satisfactory completion of work.*

**CUTLER MAIL CHUTE COMPANY**

Offices:  
Cutler Building

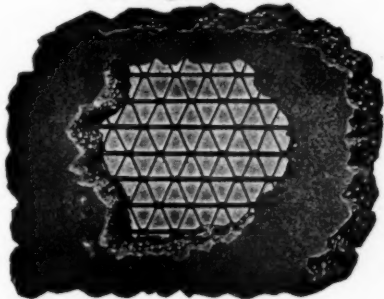
ROCHESTER, N. Y.

Factory:  
Anderson Ave.

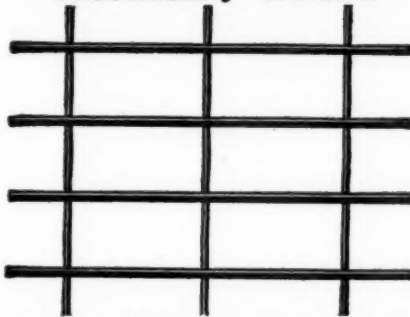


# American Steel & Wire Co. WIRE REINFORCING FABRIC

**Triangle Mesh**



**Electrically Welded**



Triangle Mesh, having high tensile strength placed in concrete, reduces to a minimum the liability of rupture in the pavement.

Millions of yards of pavement, reinforced with Triangle Mesh, have been laid in the last eleven years in the United States.

Triangle Mesh has demonstrated its superiority over all other types of pavement reinforcements, and is the most economical fabric on the market.

Electrically Welded Fabric, a square or rectangular mesh, is made from cold drawn steel wire electrically welded at the intersections of the transverse and longitudinal wires.

It is made in rolls 150, 200 or 300 ft. long, and in widths up to a maximum of 96 inches except for longitudinal spacing of 2" in which case the maximum width is 60".

The same high quality of material and service that has given Triangle Mesh its reputation is back of Electrically Welded Fabric.

**American Steel & Wire Company**

Sales Agent  
W. H. JENNINGS

Baltimore Office  
32 S. Charles St.

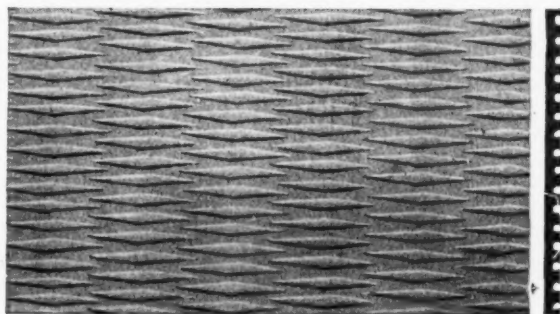
**KERLOW**  
GRATING PRODUCTS

KERLOW STEEL FLOORING CO.  
222-238 CUMBER AVE.  
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*Non-Slipping*

Rolled Steel **"NEVERSLIP"** Floor Plates



**RAISED DIAMOND**  
Diamond and Ribbed Pattern

AMERICAN PRESSED STEEL CO., Philadelphia, Pa.



**Clinton Electrically Welded Fabric**

*The Ideal Mesh Reinforcement*

Fabricated from low carbon drawn steel wire, the best material known for tensile reinforcement.

Mesh formed with clean cut, rigid connections obtained by electrically cross welding the longitudinal and transverse wires.

Every wire straight and true and in line with principal stresses.

Furnished in various sizes of wire and mesh, in rolls or sheets. Complete information upon request.

**WICKWIRE SPENCER STEEL COMPANY**

*General Offices*

41 East Forty-second Street, New York

Worcester	Buffalo	Cleveland	Detroit
Chicago	San Francisco	Los Angeles	Seattle

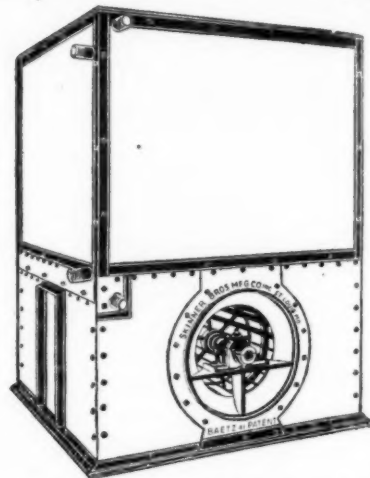
Skinner Heaters have proved to be indispensable in providing correct temperature for every kind of manufacturing plant.

"Through the use of Skinner Bros Steam Coil Heaters for air conditioning in our dye houses we have eliminated deplorable working conditions and drippage from condensation, which often results in spots on merchandise being processed. This meant a loss of time in redyeing."—  
*H. V. W. Scott, Manager, Van Raalte Co., Paterson, N. J.*

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Our staff of engineers will, without obligation, advise with Executives, Engineers, Superintendents, and Managers concerning heating, ventilating and air conditioning systems for mills, factories, plants, foundries, shops and buildings of every size and type. Thousands of prominent manufacturing, large and small of every type in the United States and Canada are users of Skinner Systems.

See our exhibit in the Fourth National Exposition of Power and Mechanical Engineering, Grand Central Palace, New York, Nov. 30 to Dec. 5, 1925.



Skinner Heaters are built in various sizes to meet every requirement of the modern industrial building.

## Skinner Bros. Manufacturing Co., Inc.

More than 30 years—The Pioneers—Giving Satisfaction  
Sole and Exclusive Manufacturers of Skinner Bros Steam Coil Heater and Skinner Bros Direct Fired Heater

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ROLLING DOORS  
**KINNEAR**

*Good Appearance*

depends upon suitability. Kinnear Rolling Doors are perfectly adapted for use in public buildings, factories, stores or warehouses. They will add value to your buildings, not only from the standpoint of utility, but in appearance as well. Our branch offices in principal cities and our Engineering Department at your service. Glad to send you illustrated Catalog D-10.

**The Kinnear Manufacturing Company**  
823-873 Field Avenue Columbus, Ohio

**MECCO**  
ROLLING STEEL DOORS

**"MECCO" ROLLING STEEL DOORS ARE SCIENTIFICALLY CONSTRUCTED  
EASY TO OPERATE  
SAVE FLOOR SPACE  
BUILT FOR SERVICE**

**MANUAL,  
CHAIN,  
CRANK OR  
MOTOR  
OPERATION**

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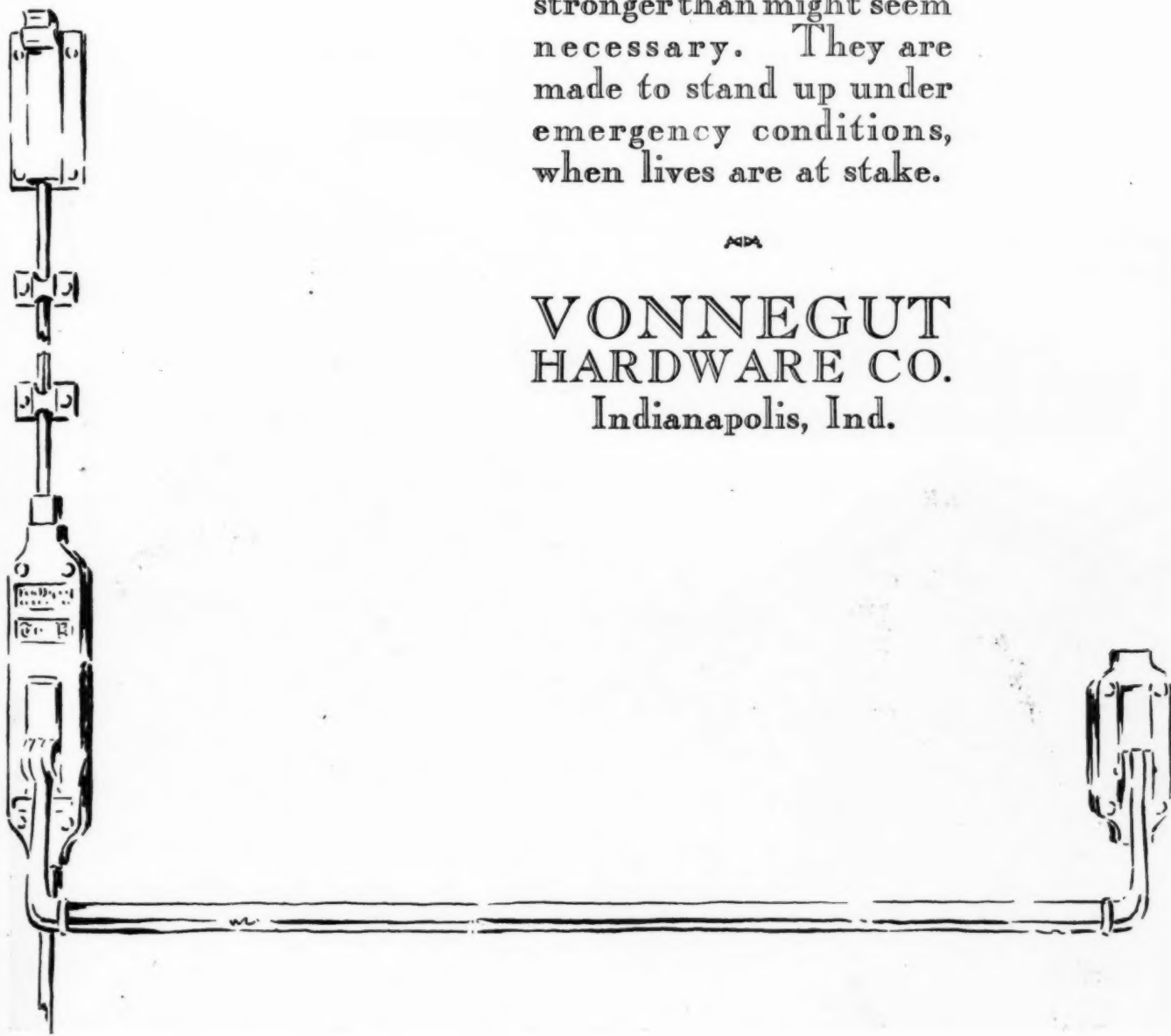
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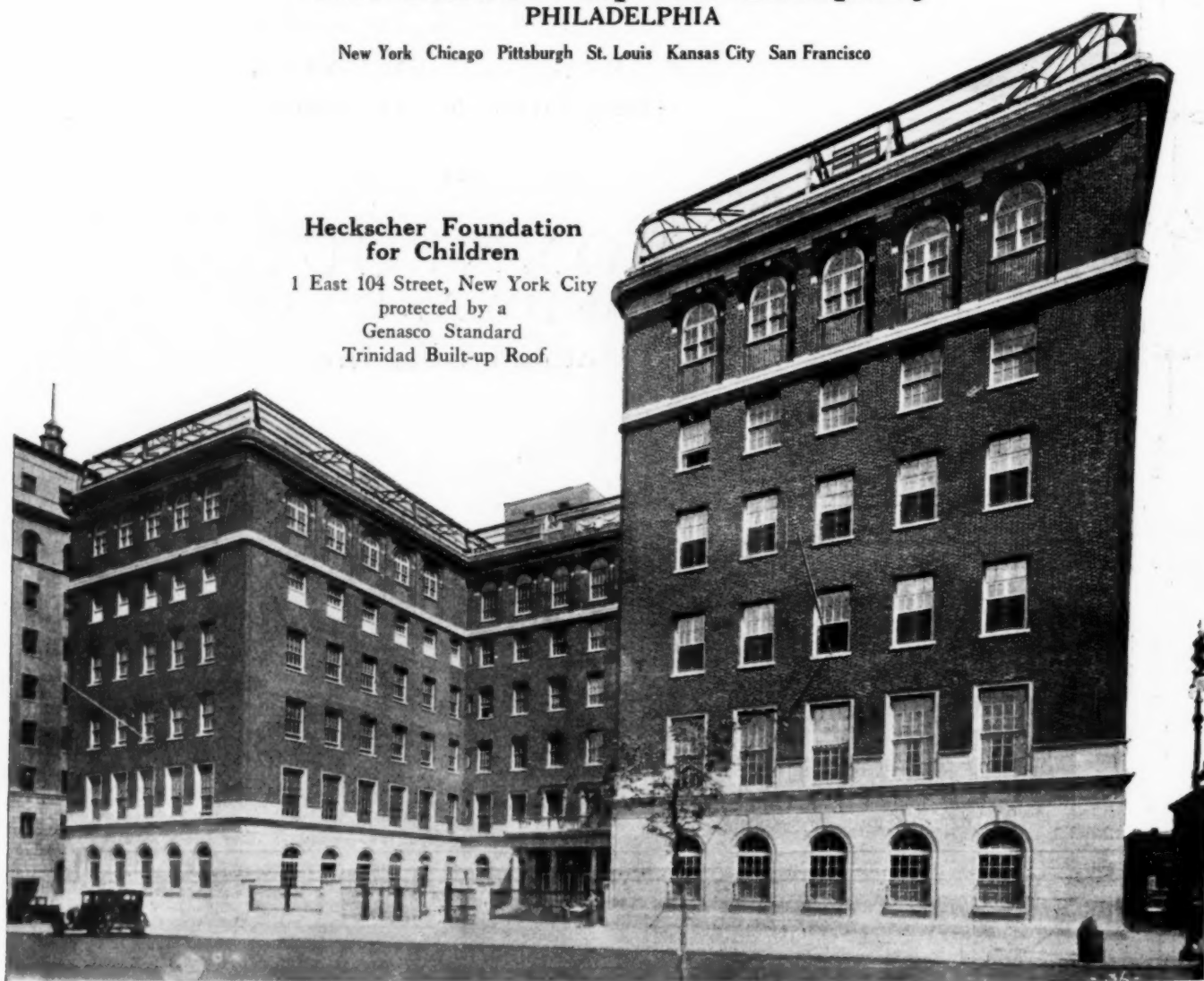
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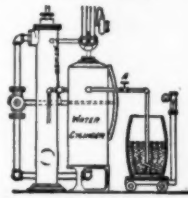
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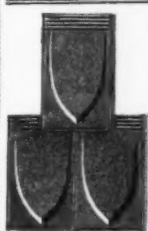


Fig. 187

Note the construction  
of patent interlock-  
ing device used on  
Edwards Metal  
Shingles and Spanish  
Tile.



Fig. 387

Metal Spanish Tile for main  
part of roof.

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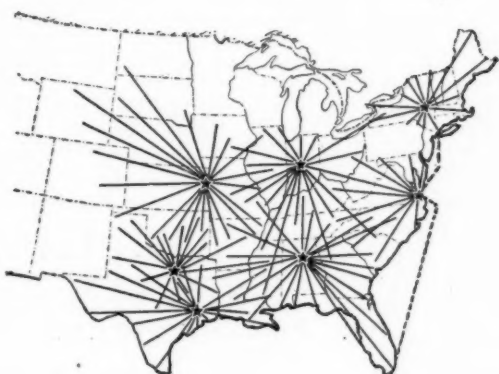
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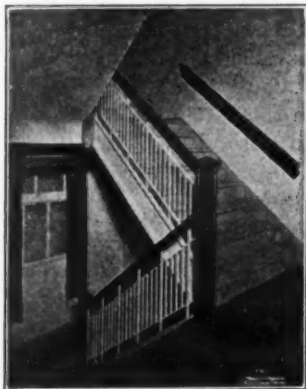
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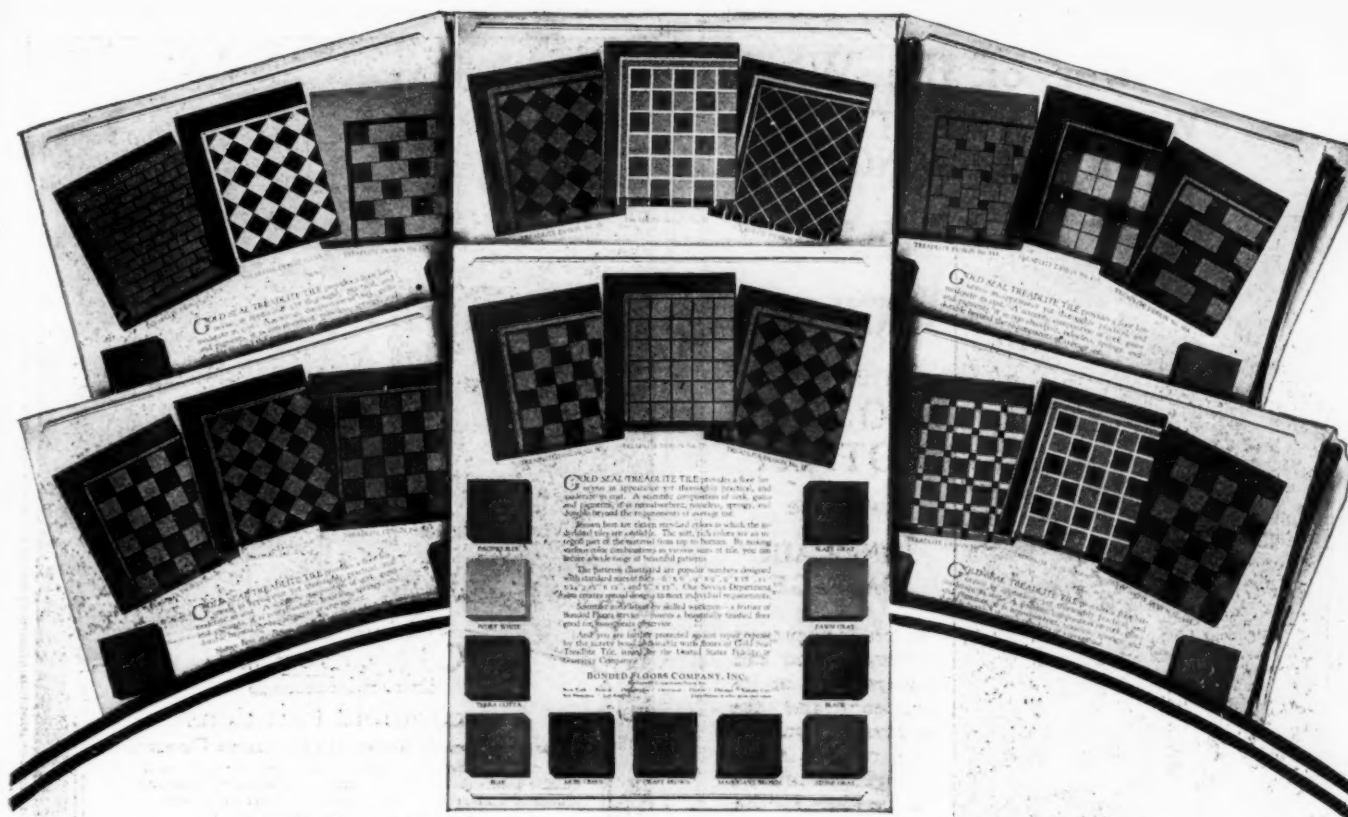
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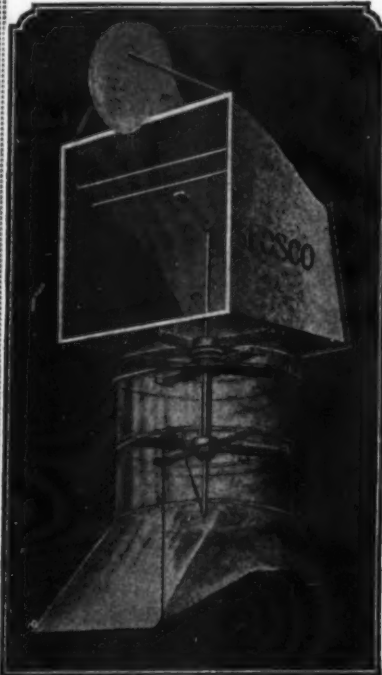
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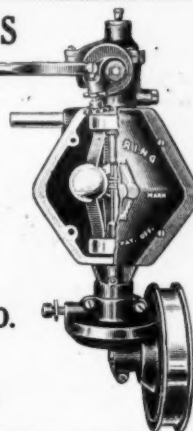
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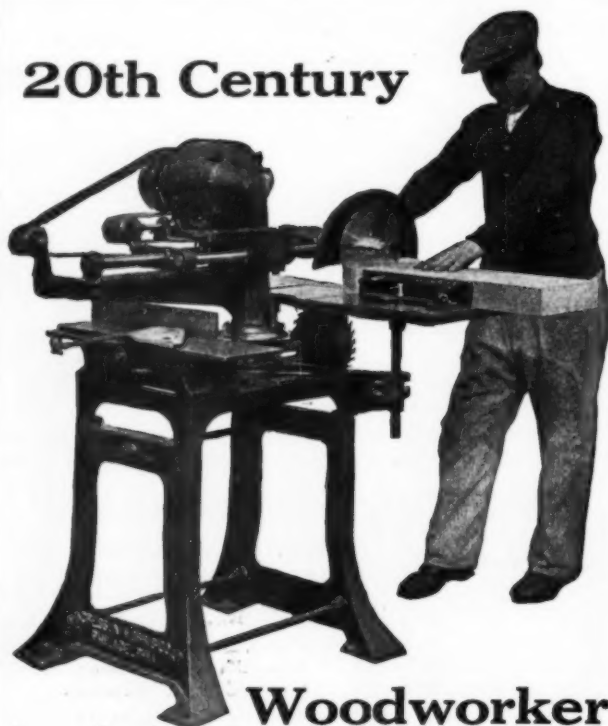
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The design and ball-bearing construction of the 20th CENTURY WOODWORKER give the greatest transmission of motor power, ease of operation and accuracy of work. It will rip or crosscut up to 4 inches of hardwood, depending on the size of the motor and saw used.

This woodworker, the product of a half century's experience, being made the machine tool way, makes for superior workmanship. Its parts are interchangeable and when dismantled, the machine can be moved from place to place.

The operation of this 20th CENTURY WOODWORKER to the various types of jobs is simple. The saw is applied to the lumber instead of feeding lumber to the saw, and the stationary motor reduces vibration making for greater accuracy.

*The saw that cuts the "overhead" is the "20th CENTURY WOODWORKER"*

**CRESSON-MORRIS COMPANY**  
18th St. & Allegheny Ave. - Philadelphia, Pa.

### USES OF THE 20th CENTURY WOODWORKER

BORING	MATCHING	MITERING
JOINTING	GRINDING	RABBETING
DADOING	TENONING	MOULDING
SANDING	STAIR ROUTING	CROSSCUTTING
ROUTING	SIDE DOOR JAMB	RIPPING
FLOWING	JACK RAFTERS	PLANING

U. S. AND FOREIGN PATENTS PENDING  
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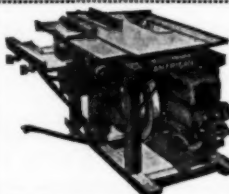
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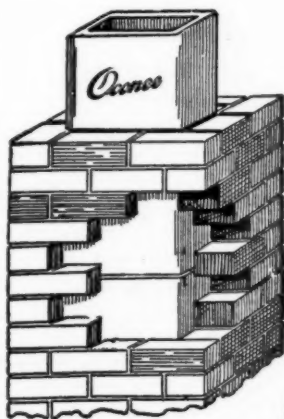
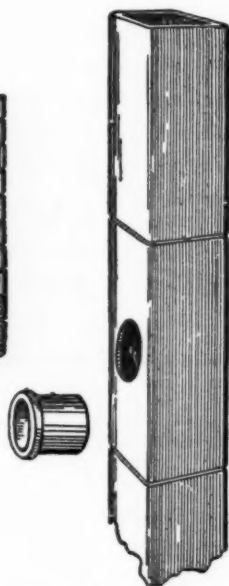
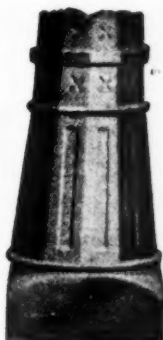
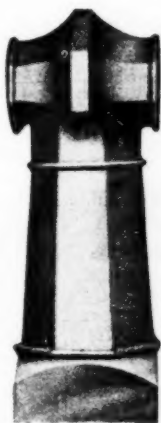


Diagram showing proper construction of chimney with Fire Clay Flue Lining.



Fire Clay Flue Lining for chimneys and Fire Clay Thimble to carry stove pipes through walls to chimneys.



ORNAMENTAL CHIMNEY CAPS WILL PRESERVE THE TOPS OF YOUR CHIMNEYS.

Fire Insurance Rates are reduced when Oconee Fire Clay Flue or Chimney Linings are installed. When the mortar falls out, there are no wooden parts left exposed to conflagrate, and gases have no effect upon these linings. With these Flue or Chimney Linings installed you can be assured of not having any chimney fires. Be sure that the lining is made of hard burned fire clay that does not crack.

*Write for detailed information convincing you of the necessity of fireproof flue linings.*

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Watch for buff color and name on every piece.

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We must meet the demands of the cotton mills. We go to your mill, hunt out the ills and weakness in your machinery, overcome these troubles, repair the defective parts, increase the production and prolong the life of your machines.

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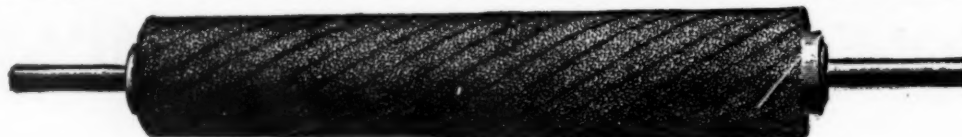
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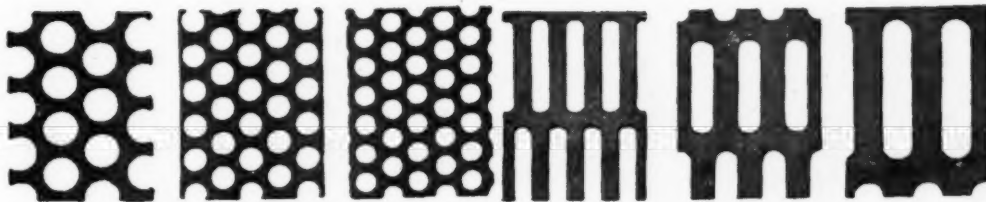
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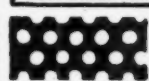
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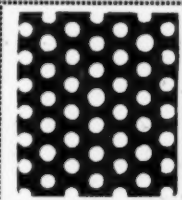
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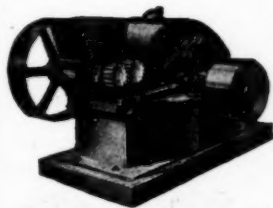
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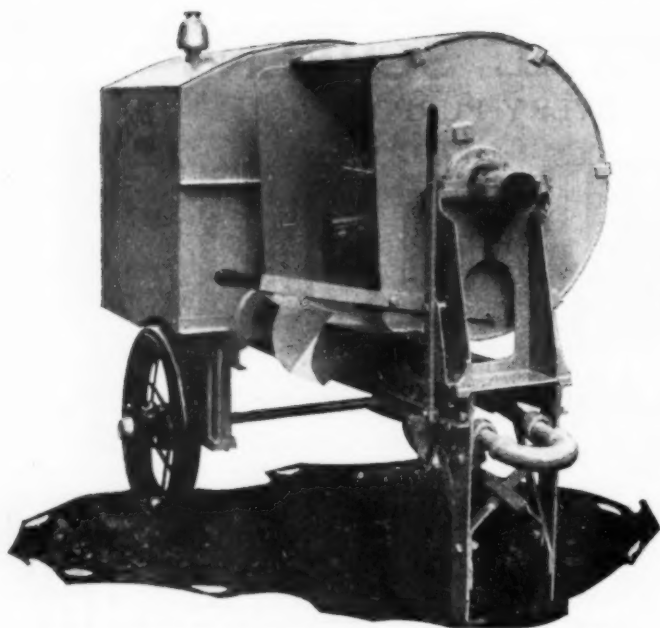
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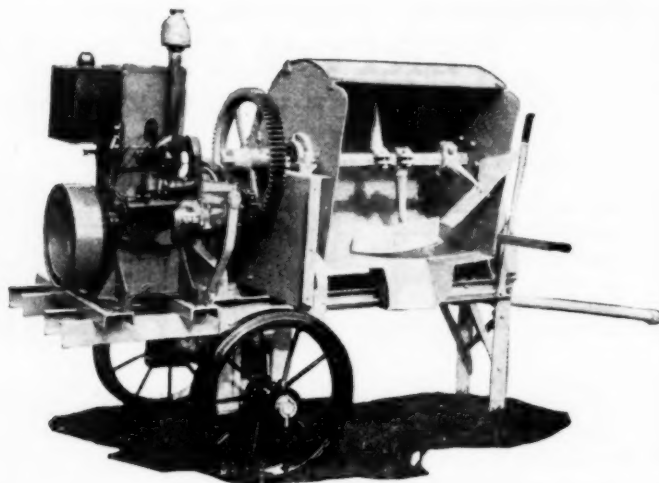
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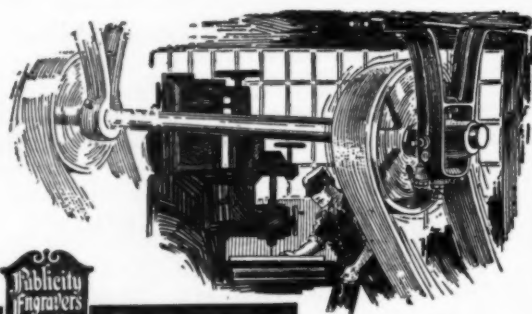
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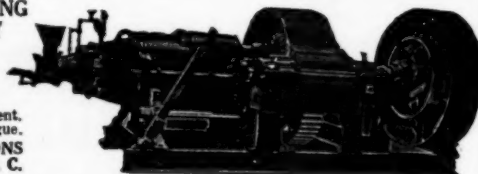
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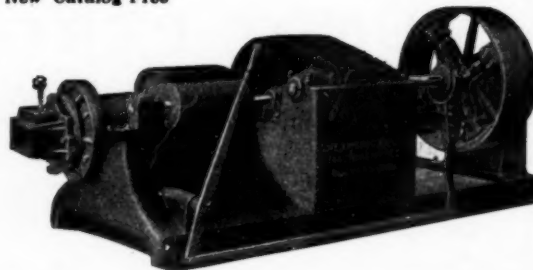
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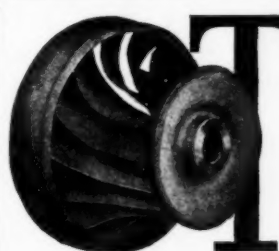
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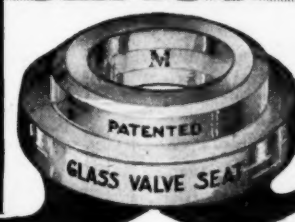
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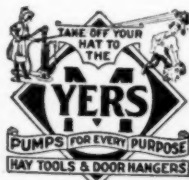
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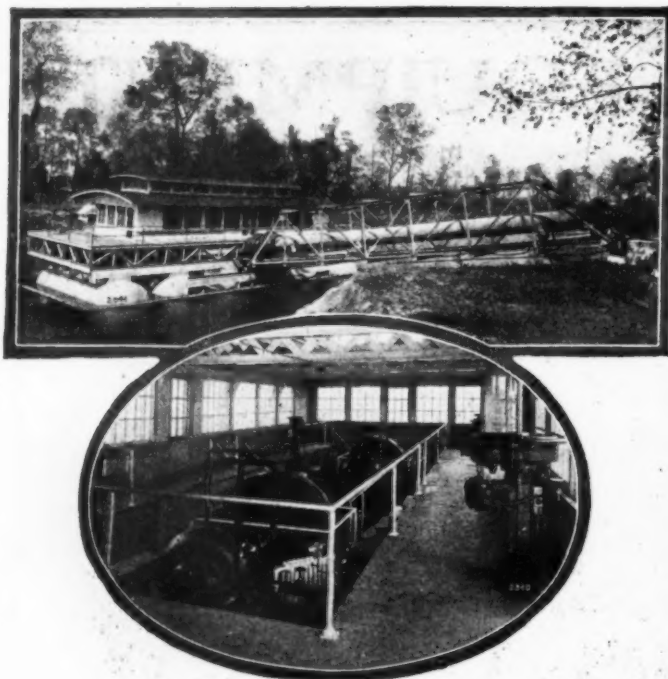


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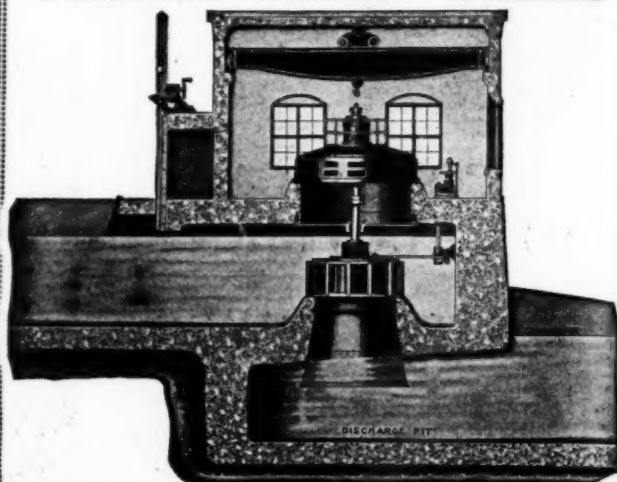
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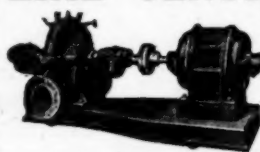
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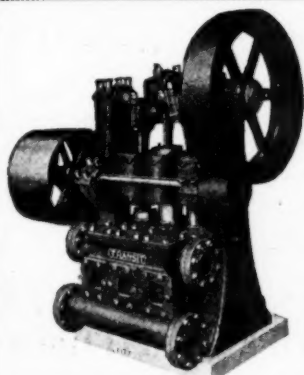
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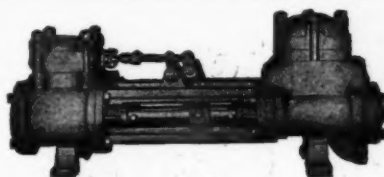
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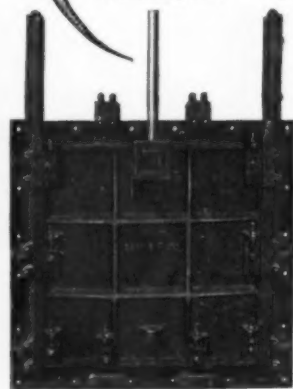
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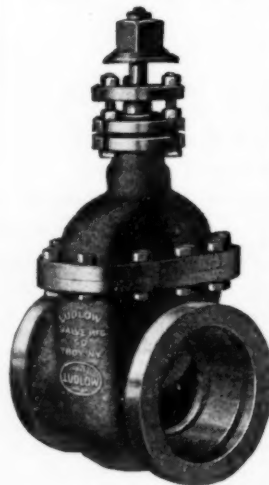
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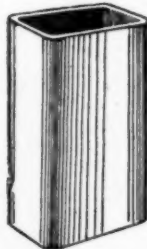
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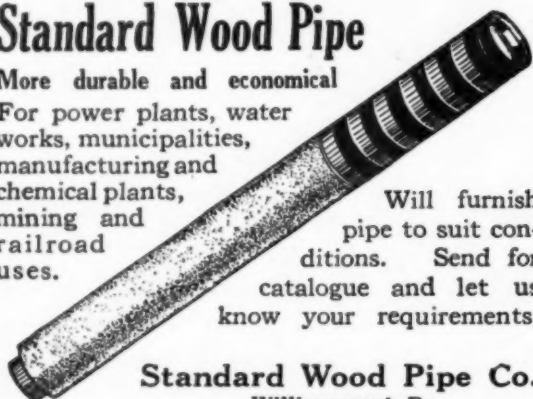


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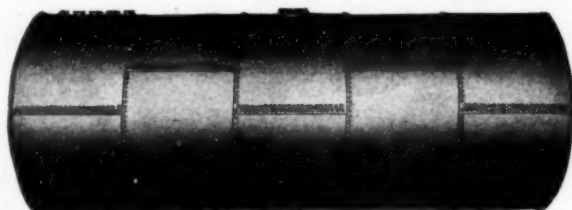
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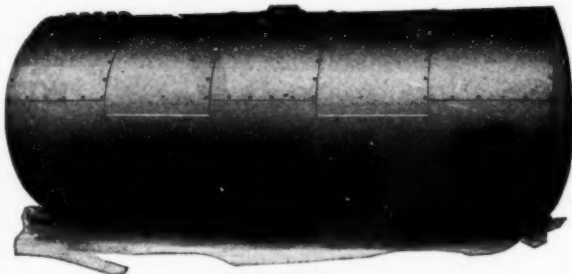
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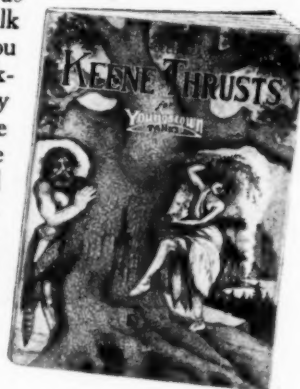
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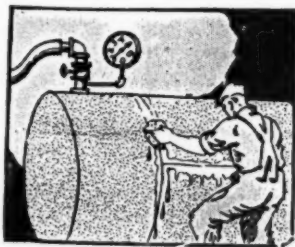
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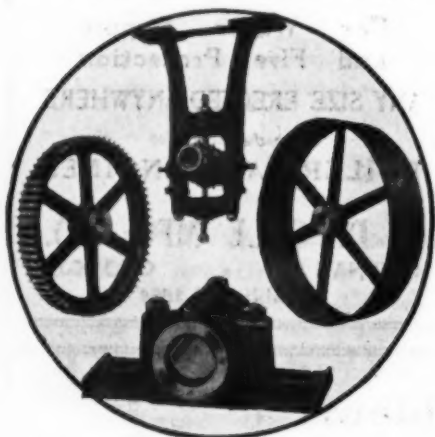




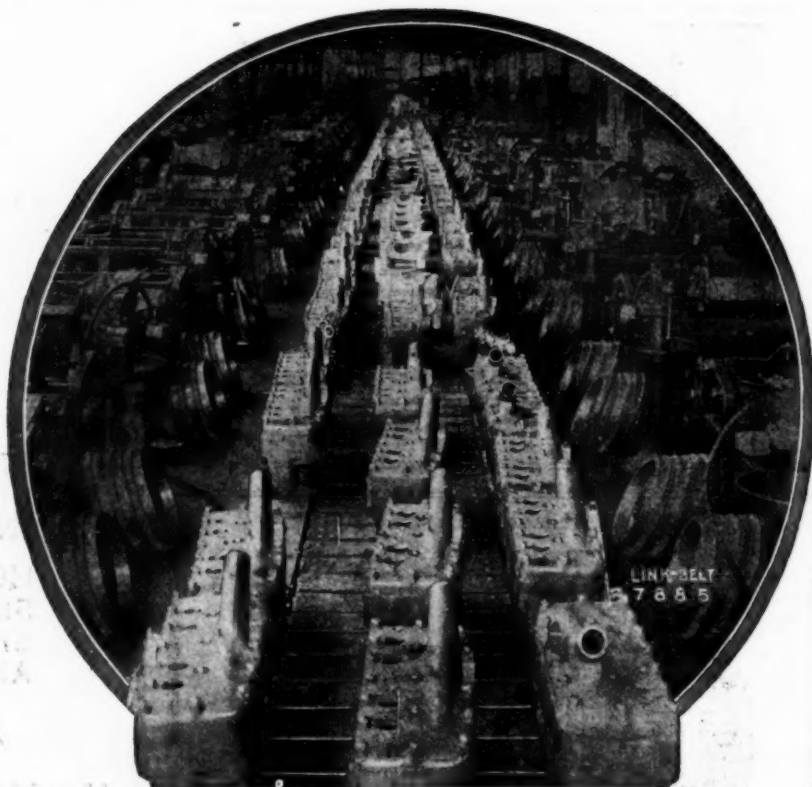
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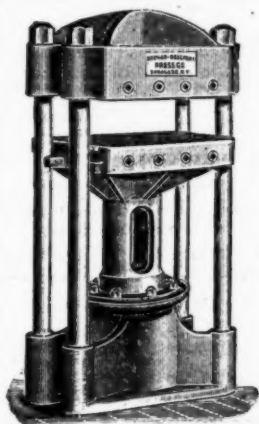
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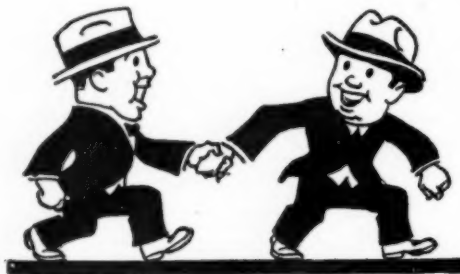
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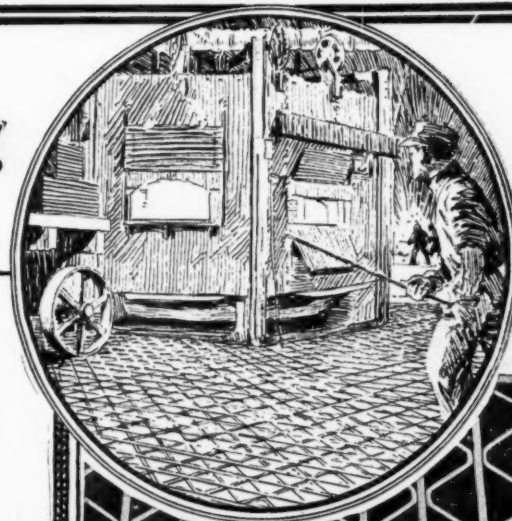
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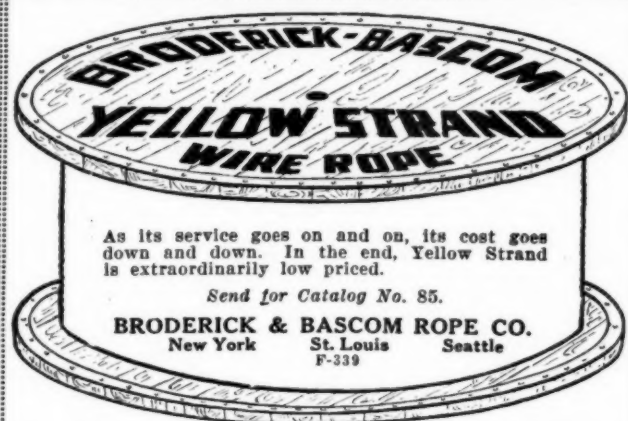
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## A View of the Tax Situation Generally Overlooked.

**L**AST week we published an interesting summary of the conference called by the National Founders Association on the question of taxation and some of the leading arguments advanced by those in attendance.

These arguments, and many which appear from time to time from other speakers and in newspapers generally, do not always take into account the real situation. It is true our taxes are high, and gradually are mounting higher so far as city, state and county taxes are concerned. As our national taxes were based mainly on war expenditures, necessarily and naturally they are being gradually reduced. But there is one side of the state and municipal taxation which has not been given consideration:

For many years road building, highway improvements generally in towns and cities, school buildings and extension of water plants and sewerage systems were all seriously neglected. Take Baltimore as a particular illustration.

Until a comparatively few years ago, the city of Baltimore, at that time with more than half a million people, was absolutely without a sewerage system. It was regarded as the worst-paved city in the United States, with nothing better than the worst of cobble-stones on most of the streets, and only here and there a mile or two of fairly smooth streets. The water supply was wholly insufficient for the needs of a growing community. Not a school building was erected for an eight-year period, and but little school building had been done for many years before that.

When Baltimore realized the danger menacing it in lack of a sewerage system, it was compelled to undertake an enormous expenditure for building a complete sewerage system costing about \$33,000,000, with more construction and expenditure in prospect.

Under wise leadership Baltimore determined to get rid of its cobble-stones and to repave the city. This required an expenditure of many millions of dollars, running up to about \$12,000,000 in the last 10 or 12 years.

The inferior school buildings, many of them wholly out of date, insanitary and literally firetraps, could not longer be put up with, and so in the last six or seven years Baltimore has had to spend \$20,000,000 to erect school buildings, and these, as rapidly as completed, were overcrowded. The old school buildings were a disgrace to the city and to civilization. Some of them were insanitary to the extreme, and it is a marvel that any city of Baltimore's size and wealth should ever have put up with them.

Twelve or fifteen years ago it was seen that the water supply of the city was growing steadily less in proportion to the increasing needs, and many millions of dollars, millions on top of millions, had to be spent to meet the water requirements, and if the city had not spent this money a few

years ago Baltimore this summer would have been up against an absolute water famine so drastic that it is difficult to understand how the city could have got through without fearful loss to business and to life.

It was also found that Baltimore's harbor facilities were wholly unequal to the growing commerce of the city, and it was decided, after a study of the situation, to spend first \$6,000,000 for building new wharves, which were leased at a profit. The success of that movement resulted in the voting of \$50,000,000 for a great wharf system, and as the new wharves are built they are leased to railroad and steamship lines at a profit to the city, taking care of the interest and amortization.

In these various requirements there is involved a total of about \$160,000,000 within, say, the last 15 to 20 years, which it was necessary for Baltimore to spend through the voting of bonds. This has materially increased the tax rate of the city, but under these improvements Baltimore has enormously expanded in population and prosperity, and the things which have been done have increased the healthfulness of the community, protected its water supply and furnished sanitary schools for an ever-increasing population.

Baltimore is merely typical of the entire country. For a long time we were, as a nation, practically asleep as to the need of highways, of smooth streets, of better school buildings, of ample water supply and sewerage system. Tremendously stimulated by the activities of the war and by the realization of these facts, the whole country started on exactly the same kind of campaign of improvement work through which Baltimore has been passing for 15 years or more.

Under compulsory education throughout the country, the number of scholars has vastly increased in proportion to the total population and the number that go through the high schools is far greater than in former years, and those who are seeking a college or university education are increasing in number much more rapidly than the population of the country.

This whole situation threw upon towns and cities and states the necessity for enormous expenditures, unlike anything they had known in the past. An increase in the rate of taxation was inevitable. But this taxation means larger and better school buildings, more abundant water supplies, better sewerage systems, more highways, more smooth streets and all the other things which make for comfort in living, for prosperity for the people, for health and for education.

It is unquestionably true that a great deal of money is wasted by political mismanagement. If those who are working on the question of taxation would concentrate their efforts upon investigating the towns and cities, to see whether the money voted has been wisely expended or not, they would



accomplish far greater good than by merely denouncing increased taxation.

Among the discussions at the meeting of the National Founders Association, one emphasized the "pay-as-you-go" plan. That is not feasible. It was not feasible, for instance, for the United States to "pay as you go" when it entered the European War to save its existence from German domination. It is not feasible for the railroads to "pay as you go" in building their extensions and in enlarging their facilities for traffic. It is not feasible for great corporations generally to "pay as you go," for most of them are compelled to issue bonds for the money with which to carry on their extensions.

Since the best managed business corporations in the world issue long-time bonds for the work which must be done to enlarge their operations and increase their profits, so communities and states must in the same way issue bonds for the work which needs to be done and which cannot be done without the money raised through bonds. Suppose, for instance, the city of Baltimore had undertaken to say, "We will do without a sewerage system, or increased water-works, or new schools, except as we can 'pay as we go'; or tax the people for these things at the time and 'pay as we go' while taxing as we go." One would have meant an indefinite extension of time in which these necessary things should be done; the other would have been a rate of confiscation which would simply have confiscated a large percentage of the wealth of the community.

It is rather surprising that those people who are studying these taxation questions fail to take into account these problems and are, therefore, constantly berating public improvements when these improvements are essential to the health, to the prosperity of the communities, to the educational facilities provided for the children and when bond issues furnish the only possible way for providing the funds needed for such work—work which means better health, better education, more comfort for the people, longer life and greater material prosperity.

In studying the matter of taxation, let us take this feature into account, that we may not make so serious a blunder as to try to lessen public work vital to the welfare of every community by berating its issuing of bonds and requiring that no work shall be done except as it can be paid for at the time out of annual taxation.

Take another illustration of a smaller town. The Florida town in which the writer spends his winters was, up to about five years ago, almost village-like in its characteristics. It had only one paved street, the others being dirt roads or simply hard surfaced and badly broken. Within the last five years, the growth of the place has been such that it was necessary to pave every street in the city, to largely increase, or almost rebuild and enlarge, its water-works, to put in a complete sewerage system, to build a City Hall, to build additional schools and establish a modern fire department. It had no suggestion of a park, and its hospital facilities were wholly inadequate for the needs even of those days.

The town has had to issue bonds for paving, for the building of a modern hospital, for the extension of water-works and sewerage system, for establishing a park, and many other improvements absolutely necessary to keep up with the growth of the town and to protect the health of the people. To have undertaken to do these things on the "pay-as-you-go" system would have required a rate of taxation that would have practically destroyed the prosperity of the city and confiscated its property, or else to have stretched it over a period of years which would have been disastrous to its progress, the healthfulness of its people and the education of its children.

The roads leading from the town out into the country were almost impassable, and hampered travel of every kind, making it difficult for the farmers to bring into the city their

produce or to take out of the city their purchases. Highways had to be built, and every highway constructed, even only a few years ago, is inadequate to the tremendous traffic of automobiles and motortrucks that crowd them, enlarging enormously the working power and the activities of the people of the city and the country alike. No modern real estate development could be carried on without improved highways. No quick connections between the farms and the cities would be possible without these highways.

These two illustrations, one of a large city and one of a small town, represent the conditions which have prevailed in every part of the United States. Exactly the same kind of work has had to be done in the big cities and the little towns and in country districts, and everywhere the expenditures made have been more than justified by the better living conditions of the people, their increased prosperity and healthfulness and the enlarged educational opportunities for the children.

Are any of these things the ones that those who are constantly agitating against increased taxes think should have been omitted?

Should we have built fewer schools when every school in the country is overcrowded?

Should we have built fewer paved streets, or fewer water-works, or sewerage systems, or hospitals, and in doing so minimized the progress and the health of every community which from a niggardly policy of supposed economy was wastefully extravagant of the health of the people and the prosperity of the community?

Outside the things mentioned, there are innumerable ways which our modern civilization has brought about an increase of expenses. Today tens of thousands of policemen are required on traffic duty to control or regulate the traffic of the 17,000,000 or more automobiles in the country. Not one of these traffic men could be safely dispensed with. Indeed, the number could wisely be greatly increased, for there are many dangerous points where traffic men are needed but where they are not to be found. Many other things which we did not need a few years ago are now essentials of our fine civilization, and none of them could be done away with without disaster.

No one can question the desirability of keeping taxes at as low a rate as possible. No one can question the need of careful supervision by competent men to see that every dollar of tax money is wisely expended; but to say that we must "pay as we go" in doing all of the things which the country has been doing during the last few years in the way of improvements such as we have named is on its face absurd and shows that the advocates of such a policy have not comprehended the cause of high taxes nor the necessity for these expenditures.

### CLEAN UP.

A DISPATCH to the daily papers from Lake Worth, Fla., gives a bit of news that suggests that similar action might appropriately be taken in many towns throughout the country. The dispatch says:

"Invading the city today, John A. Lynch, District State Health Inspector, declared that drug stores and attendant soda fountains were too dirty to continue operations and ordered them closed until proper clean-up action had been taken. Another inspection will be made tomorrow, and the stores that pass inspection will be permitted to resume business."

Would that every grocery, every meat store and every soda fountain in the country might be constantly watched by an inspector as careful as this one seems to have been, and temporarily a great many of them would have to close!



## The Seat of Empire of Finance and Commerce Is Passing to the United States.

**I**F, in an altruistic spirit, the countries of Europe had desired to bring about the largest possible development of this country; if they had desired to transfer the seat of the empire of commerce and finance and industry to the United States, they could not in any other way have accomplished it so effectively as they are doing, for they will bring about these results by their own disasters following this terrific war.

"Nature has so marvelously endowed this country with almost limitless resources for material development that we have here the foundation on which to build a manufacturing structure far greater than that of all Europe.

"We have an area capable of supporting a population larger than that of Europe.

"We have raw materials with which to keep these people busy in industrial activities and the land on which to produce their foodstuffs.

"Here are resources sufficiently great and diversified to provide employment for hundreds of millions, and here, too, are the resources for feeding and for clothing them.

"The combination of advantages is nowhere else matched on earth. Nothing like it is known to mankind.

"Europe has for many years noted with envy and jealousy our great development in material things, but it has viewed with still greater envy our matchless resources in all of the raw materials which furnish the foundation for every line of manufacturing known.

"The conditions which exist in Europe will literally compel a development here whenever the war is ended far greater than we have seen in the past. This war will put the United States ahead 50 years in its domination of the finance and commerce of the world and throw Europe back 50 years. Within 12 months after the war has ended this country will hold a more dominating position in the finance and commerce of the world than it could have held in 50 years of peace. Sad as it may be that our progress will be built on the wreck and ruin of material things and on the death of millions of men and the wastage of billions of wealth in Europe, nevertheless this is the opportunity which the people of Europe are forcing upon us.

"Then, too, there are other phases of national life and activity as a result of this war which will be of benefit to our country. In this time of strife, when financial ruin for a few days threatened the country, the National Government and the people at large turned for safety and protection to the very banking interests which for years they had been denouncing. And not only did the fierce financial storm which threatened us drive this Government and the people to seek the protection of the great financial forces of the country, the very forces which yellow journalism and the people for which yellow journalism stands had been denouncing, but Europe likewise turned to these very institutions

that they might help to meet some of their problems.

"If there is in our people—and surely all must admit that there is—the capability of learning by sad experience, they will learn through this situation to think less harshly of our great business leaders and to recognize their integrity of character as well as their strength in financial affairs. The Government and the business interests of the country have been brought into closer touch and into closer co-operation than for many years, and out of this great good will come.

"Moreover, as a nation we have been taught as we could not have been taught in any other way the supreme necessity of a great merchant marine. For years men who have foreseen the possibility of this condition have labored in vain to awaken our country to the importance of the subject. The necessity for a merchant marine has never been so clearly recognized as it is now. Indeed, many people have scouted at the need of it, and said that we could more wisely depend upon European ships to carry our stuff abroad, because they could do it at a lower cost than could American ships and that, therefore, we were making a profit by letting them do the carrying trade. In the last two weeks the people of this country—the farmer who produces the grain and the wheat, the banker, the manufacturer and the capitalist—have suffered a greater aggregate loss than the amount that would have been needed, even under a most liberal subsidy, to have built up a merchant marine equal to the present needs.

"The cotton growers of the South and the grain growers of the West have been told that they were not interested in ocean shipping, and that it did not concern them whether the United States had a merchant marine or not. They have now learned by a sad and costly experience that they need this merchant marine more than the manufacturers and capitalists and far more than the men who have been the leaders for 25 years or more in advocating the development of our shipping interests.

"We have thus been brought as a nation into closer touch, and bankers and manufacturers, financiers and Government officials have all learned to know each other somewhat better, have learned to see each other face to face and eye to eye, and this is worth much. We have at the same time learned the need of safeguarding our future against the conditions which now prevail, and learned the need of building up a merchant marine in keeping with our resources and the possibilities of our commerce.

"While we have thus been learning these vital lessons we have at the same time been suddenly thrust by all the Powers of Europe into the center of the stage to do the work of maintaining the world's financial equilibrium and shaping the financial and business affairs of the world.

"The seat of empire of finance and commerce and industry is already transferring its home to this, the most supremely blessed land upon which the sun shines. What matters, so far as we as a nation are concerned, the difficulties of the

moment in the light of the limitless opportunities of the coming years?"

It is greatly to be regretted that in his recent address President Coolidge took the ground that America had not been financially benefited by the war, and in the same breath, with undue urgency, pressed upon European countries the necessity of settling their indebtedness to this country. The two things were inappropriately stressed in the same speech.

As a result of the war America has enormously progressed. It is not possible to deny the actual facts which exist, and which are known to all people well informed, as to the vast development of this country coming out of the stimulation created by war and our enrichment through the impoverishment of Europe in buying from us on such a gigantic scale as was necessary during the war and for one or two years thereafter.

It was also, we think, extremely unfortunate that the President of this country should have deemed it proper to utilize such an occasion in what could only be regarded by the Allies as a criticism or a reflection upon them. We have done so much since the war to create justified antagonism and a spirit of ill will on the part of the Allies against the United States that every added word of criticism of any kind only serves to intensify that feeling.

From the day when, in high circles and in the press and pulpits of the land, it was proclaimed that we were the most altruistic people in the world, in that we had gone to war to save Europe, the MANUFACTURERS RECORD took the view that this was absolutely untrue as shown by the official records of reasons why we went to war, and could only be creative of ill feeling on the part of the Allies. Indeed, every statement of that sort was like a slap in the face of the Allies. The ill feeling which now exists against the United States is merely the fulfillment of what intelligent people should have known would be the inevitable outcome of our assumption of superiority of unselfishness and altruistic work. We were neither unselfish nor altruistic as a nation. We fought only after President Wilson told us that Germany was making war upon us and that no self-respecting nation could afford not to accept the gage of battle and asked the authority of Congress to begin an active war against Germany.

Within a few days after the opening of the war in Europe, or on August 13, 1914, the MANUFACTURERS RECORD published an editorial forecasting the result of the war which has literally come true in every particular; this we are republishing to show how literally the predictions then made have come to pass. We took the ground that the war would result in advancing the United States in finance, commerce and industry 50 years over what would have been our position under ordinary conditions and that Europe would be thrown back 50 years as a result of that war. It does not seem to be amiss to publish that editorial, for the forecast then made has come true and is in direct contradiction to the position taken by President Coolidge in his address in which he stated that America had not been enriched by the war. We greatly regret that the President of the United States should have ignored the actual facts of our marvelous, almost incomprehensible, development and at the same time added fuel to the fire which is burning in the hearts of millions of people in other parts of the world as against this country.

All the World Courts and all the Leagues of Nations which could ever be brought into existence under conditions which would justify our entrance could not atone for the mistakes we have made in giving just cause to other nations for offense against us, nor completely wipe out that ill feeling which has been generated by our pharisaical assumption of superiority and that boundless wealth which has been heaped upon us beyond the power of the world to comprehend.

President Coolidge also spoke of the great benefits of the

heavy loans individual bankers and investors have made to Europe, but he might well have said that these loans have been made wholly because of the heavy rate of interest—often outrageously high—that has been demanded of these helpless borrowers, whose necessities our bankers have made their opportunity for "grinding the poor."

#### WOULD THE WORLD COURT DO BETTER?

**W**E are urged to join the World Court. The President insists upon it as a step toward a better world. Yet the President, in whose hands is the administration of the Navy Department and all its activities, including its trial courts, has not moved a finger to rectify the injustice of throwing out of court the attorney of a widow, the widow of a man who helped heroically to defend his country, and who went to his death obeying orders to which he had objected on professional grounds. Having refused to grant this woman the support of legal advice in meeting her inquisitors, the same court allows another witness, this time an able-bodied man and an official of the same department to which the court belonged, to have the advice in that court of his attorney when he stood on the same plane, to wit, that of a witness.

If a court that, because of its nature, is essentially under political influence, cannot set a higher standard of judicial ethics in its procedure than this, by what process of reasoning are we to assume that a court dominated by the political influences of empires should be safe for the use of a free people like the United States? If the American sponsor for a World Court does not instantly correct the abuses of prejudice within his personal jurisdiction, why should we assume that the World Court will adopt a superior norm of fair dealing? The case of Mrs. Lansdowne and Captain Foley before the Shenandoah naval court of inquiry indicates that the world has not yet progressed to a point where we dare to tie ourselves to any extraterritorial tribunal, other than special courts of arbitration, for which numerous treaties between the United States and foreign countries provide. The World Court is likely to prove dangerous. At any rate, for all the purposes that its friends propose, it is at least superfluous.

#### A MOST UNUSUAL AND A RATHER UNSATISFACTORY EXCUSE.

**T**HE president of a machinery company in Oklahoma City declines to renew his subscription to the MANUFACTURERS RECORD on the basis of a very unusual excuse, but one which, though complimentary in a sense, is hardly satisfactory. He writes: "The MANUFACTURERS RECORD is so very interesting from a reliable news standpoint that the writer neglects his business when the RECORD comes in to read it from cover to cover, including the advertisements. This is our sole reason for not renewing our subscription."

Think of a man holding an important position at the head of a big machinery company giving as his reason for not continuing his subscription to this or any other paper that it is so absorbingly interesting that the reading of it causes him to neglect his own business! In thus shutting off mental food and stimulation and broad knowledge of what is going on in the world he is depriving himself of a source of education the value of which he freely admits. Is there no spare time in the day or in the evening when this official could get away from the routine detail of office management to keep himself thoroughly informed about the things which he admits are intensely interesting to him?

We have had many reasons given us by business men for not subscribing, but never before have we had one quite like that of this Oklahoma business man.



# A Striking Argument From a Leading Attorney for Cancelling Debts of Allies.

[William W. Mackall, the writer of the following remarkably strong letter, is one of the foremost attorneys of the South. His argument in behalf of cancelling the Allies' debts is, we believe, unanswerable from the legal and the ethical standpoints. His appeal that we take this step from the viewpoint of justice and spiritual and material progress should appeal with great force to our country.—Editor Manufacturers Record.]

William W. Mackall,  
Attorney and Counsellor-at-Law.

Savannah, Ga., November 20.

*Editor Manufacturers Record:*

The attitude of your great and conservative magazine towards the war loans technically due to this country by the Allies in the late war has been and is a source of keen gratification to me; for, from the very initiation of these loans, I have contended that they should not be treated as ordinary obligations of one nation to another.

For my own part I have never been able to see the distinction between money advanced to friends to enable them to maintain a situation, in which we were vitally interested, until we could get there and money expended by us in our efforts to get there. In substance we said to the Allies:

"We have declared war against Germany, not for the purpose of assisting you, for our President has made it plain that this country is not interested in either the causes or outcome of the struggle between you and Germany, but because of the hostile and brutal acts of Germany against the lives and properties of our citizens, and the time has come when we are 'compelled to defend our own property and protect the rights and lives of our own citizens' (statement of President Coolidge). Under these circumstances Fate has allied our interests with yours against a common enemy.

"Never dreaming that we would be drawn into a war with which we considered we had no concern except as a neutral, we unfortunately are not prepared to render any physical assistance to the cause which is now common to all of us until we can organize, arm and equip and transport to France an army to join your armies in operations against our now common enemy. This is a stupendous undertaking and it will require many months before we can hope to see our troops in any considerable force on the soil of France. Under such conditions it is essential that you should redouble your efforts to maintain, for our sake as well as your own, your position in the front of our common enemy until we can put on the fighting line an army commensurate in size, morale and equipment with the vastness and world importance of the undertaking and the dignity and wealth of this nation.

"In the meantime, as in gold and material wealth we are the richest country in the world, we will place at your disposal large sums of money, which can be expended by you in the purchase in this country of arms, ammunition, equipment and food for the maintenance of your armies in the field, as it is just as important for us as it is for you that the efforts of your troops to hold the enemy in check should not be defeated by a lack of materials of war."

The Allies accepted the money and purchased their require-

ments in the United States, leaving in the hands of the American public as profits perhaps half of the money expended.

Some two years ago I wrote a letter substantially outlining these views to a prominent paper whose editor was an advocate of the pay-all policy. My article was not published. Since then I have not put pen to paper on the subject, and if I am now moved to write this communication, the reason must be ascribed to your editorial on the front cover page of the MANUFACTURERS RECORD of November 19 entitled "Our Relation to the Allies," which succinctly and clearly outlines the true relations between this country and the Allies in respect to the war debts, and which I wish could be read by every thinking man in this country.

In order to assure a long period of peace throughout the world it is essential that good-will and sympathetic co-operation should be cultivated and maintained between the civilized nations. The United States is in a position to take the lead in bringing about this situation, and I have always thought, and believe now, that by one stroke of the pen this country can do more to attain this object than all other agencies combined. Cancel the debts of the Allies and the civilized world would forthwith make a great and triumphant leap towards peace and happiness, and the citizens of this great Republic can then feel that their beloved country had, in fact and truth, put into practice those ideals about which our statesmen and leaders love to talk.

It is gratifying to note that the American people are beginning to realize that the attitude of their Government towards this question has not been in harmony with the spiritual side of the nation; that the insistence that obligations which were created for our benefit, just as much as for the benefit of the Allies, must be paid to the utmost farthing is lacking in the elements of right and justice. Indeed, as I look at the question, even if treated as a strictly business proposition, this country should at least be willing to bear a substantial portion of the expense of holding the fort for the benefit of all concerned.

Some of our statesmen go up and down the country suggesting first one and then another nostrum for ostracizing war and establishing permanent peace among the nations of the earth—the League of Nations, the World's Court, Disarmament—each and all have been proclaimed as the panacea for the cure of a sick and weary world, and yet these same men are so obsessed with the idea of the sacredness of national debts that they cannot differentiate between an ordinary loan made by one country to another and the advances made by this country to the Allies in an emergency which was partly due to our own negligence in failing to be prepared. And, beyond this, they fail to see that they have within their reach not a theory, but a fact which, if utilized, would go far to solve the problem of permanent peace and goodwill among nations.

With assurance of a peaceful world, the loss, if it can be so called, incurred by the United States by the cancellation of its loans to the Allies would be offset a hundred-fold by the spiritual and material benefits accruing to the American people.

W. W. MACKALL.



## BRANCH BANKING A DANGEROUS MOVEMENT FOR THE COUNTRY'S FUTURE.

**B**ALTIMORE is becoming a pronounced illustration of the tendency toward the establishment of branch banks by the purchase of suburban banks and the establishment of branches throughout the city and surrounding territory. Suburban banks which have heretofore done a prosperous business for the benefit of the communities in which they are established are being absorbed, one by one, by the big bank and trust companies of the city.

The tendency toward rapid consolidation and combination is under way. What is going on in Baltimore is only indicative of the spirit which is abroad in the land in favor of branch banking. It is a very dangerous movement. It may bring prosperity for the time being to the absorbing banks, but it is dangerous in the extreme in the tendency to a gradual absorption of one bank after another, looking forward to the time when our splendid individual banking system, upon which our prosperity has been so largely built, may come under the domination of a few big banks in the big cities of the country. Bigness seems to be the craze of the hour. It is dangerous. Centralized banking, such as now exists in Great Britain and Canada, with thousands of branches, has sapped the prosperity of Canada and is rapidly sapping the prosperity of Great Britain. Indeed, to this centralized banking system is due much of the absorption and the concentration of most of the wealth of Canada in the hands of a few centralized banks, with tentacles over the whole vast region, and drawing the life-blood of credit away from the country districts into these centralized banking cities.

In a strong article republished in this issue from the London Outlook, Arthur Kitson, a manufacturer of England and president of the Bankers Reform League of that country, points out with clearness how the big consolidated banks of London are practically throttling the industrial life and prosperity of that country. Banks are growing enormously wealthy and are making enormous profits, while the country at large is suffering. These branch banks in England, as in Canada, have little power to help a local community. They can act only through the main office. Any profit made by the operation of these banks does not remain in the local communities in which it is earned, but is drawn to the centralized banks in London, in Montreal and elsewhere.

Many big banking interests of this country are using their utmost power to develop branch banking. Efforts are constantly being made through Congress to make this feasible. Our prosperity, the greatest the world has ever known, has been built up largely by the individual, independent banks scattered all over the land. The independent bank in any community knows the conditions far better than the manager of a local branch of a centralized bank could know, and is in better position to help that community. We have some 30,000 or more banks scattered through the country. Their work is largely responsible for our abounding prosperity. To permit the growth of branch banking would simply be to centralize in a few big cities of the country the wealth of the nation, giving to these big banks the power, more completely than ever before, to dominate the finances and business life of every section. These big banks and their stockholders would be enormously enriched by this power, but the country at large would be drained of its general prosperity to increase their wealth.

One of the claims made in behalf of branch banking is that many of the small independent banks fail where, it is claimed, the larger banks do not fail to the same extent. The record of banking in England and Canada is directly contrary to that. In an interesting pamphlet on the subject, Andrew Jay Frame, who is recognized as one of the foremost bankers in opposition to branch banking, calls attention to the fact

that 30 years ago 86 per cent of Britain's banking power was subject to about 80 central banks, which now, through amalgamation, are reduced to five. In Canada, he says that "the central banks now skim the cream from over 4600 branches, leaving only the skim milk for the rural and suburban populations. Branch banks have no local stockholders, no presidents or cashiers. They loan no money to farmers on mortgages. They practically pay no taxes and have figureheads for managers, subject to alien officers' orders. The most serious objection is that practically no profits are distributed locally where they are made, thus impoverishing the nation at large for the sole benefit of monopolizers in the great centers."

"Official statistics," he adds, "clearly show that failures of banks and losses to depositors in Canada, compared with our national banking system, exceed ours several times over. \* \* \* Canada has 3,000,000 square miles of territory—her banking power is less than that of Massachusetts alone. She is asleep, compared with our progress."

Mr. Frame quotes the Toronto Star of several years ago as having said:

"Monster banking monopoly a leech at Canada's throat, killing local industry, depopulating rural districts. Centralization of almost entire financial power in the hands of a few capitalists has resulted from our much-vaunted banking system. Almost total extermination of local banks. Planting of a 'branch' to suck out local earnings," and much more of the same kind.

In further discussion of the subject Mr. Frame says:

"I have also seen Old World banking recede from some independent banking freedom to monopolistic banking, colossal failures and appalling losses to depositors, which should be object-lessons to warn our statesmen to pause before handing over our destinies to the tender mercies of any autocratic banking power. May we ask: Have not autocracy and oppression wrecked the equilibrium of the whole world? We must concede that some small advantages may accrue to a favored few under branch banking, but, in the language of the immortal Lincoln, 'the greatest good to the greatest number' would be practically eliminated."

So great is the power of concentrated money, so human is it for men to seek the larger development of their financial power, that we must ever bear in mind that the inevitable tendency is for bankers unceasingly to strive to enlarge their control over the banking system of the country, a growing and ever-growing danger which we must meet—it will be folly to shut our eyes to this trend of financial power. The banker, seeing things from the banker's point of view, seeking his bank's development on as large a scale as is possible, rarely looks to the broad interest of the country at large in the years that are to come. He lives in the present, thinking of the present, and fails often to realize that every movement that he makes toward absorbing suburban banks or the banks in neighboring towns only serves to increase the danger of a gradual absorption into a few great banking houses in the great centers of the country of the financial power of the nation. Indeed, the suggestion has been made that a few big banking interests in New York, with the growth that is under way, may become more powerful than the Federal Reserve system itself, and be entirely independent of its operations. New York bankers are running a vigorous competition to see which can outdo the other in the magnitude of its control of finances.

That is merely the expression of human nature, but human nature in such cases should be curbed by legislative power and not be encouraged by legislation to keep on expanding and absorbing to the extent that is already seen in California, Detroit and Cleveland, and which is now so markedly under way in Baltimore.

## SOUTHERN CLASS RATE ADJUSTMENT PROPOSED WOULD BE A BLOW AT SOUTHERN INDUSTRY.

**A**N emphatic and unanimous protest has been filed with the Interstate Commerce Commission against its report on the Southern Class Rate Investigation, the 42 transportation companies in the South to be affected by the findings of the Commission declining to accept the conclusions expressed in the report, saying that, in their judgment, complaints against this rate structure, if established, would be so general, particularly upon the part of Southern industrial and shipping interests, that a continuing series of changes would necessarily follow and thus defeat one of the objects sought.

"These demands," continues the statement of the objectors, "to correct and remove the hardships placed upon the industrial South by this artificial rate structure, which discriminates so unjustly against the South and prefers so unduly other distant but competing sections, would, if satisfied, inevitably result in additional drastic reductions in the carriers' revenues."

As instances of the injustice of the rates prescribed in the report the statement of these roads of the South also says: "The rates prescribed in the report from Buffalo-Pittsburgh territory to North Carolina points are lower than rates from intermediate points in Eastern trunk-line territory for materially less distances. \* \* \* It likewise requires the publication of the same rates from Buffalo as from Pittsburgh to Carolina points, although the distance from Buffalo is more than 100 miles greater than from Pittsburgh.

"The statement shows that from Harrisburg, Pa., to Greensboro, N. C., a distance of 411 miles, the existing rates fixed by the Commission on third, fourth, fifth and sixth classes would be higher than from Buffalo or Pittsburgh. On fourth class the difference in favor of Buffalo-Pittsburgh is 10 cents per 100 pounds.

"Again, the rate fixed by the Commission in the North Carolina cases from Baltimore to Greensboro, a distance of 333 miles, would be higher on fourth, fifth and sixth classes than from Buffalo, a distance of 723 miles, or more than twice the distance from Baltimore."

In another place the carriers' statement of protest says: "In many instances, even on the direct routes, the report prescribes higher rates to intermediate points than to more distant points. It further shows that via circuitous routes, in connection with which fourth-section relief might be granted, and to intermediate points (that are equi-distant or short of equi-distant mileage), higher rates are prescribed than to more distant points, and this condition would be created via established routes that have been in use for a great many years. To illustrate: The short distance from Rochester, N. Y., to Columbus, Miss., is 1088 miles, and to Birmingham 971 miles. The short line to Columbus is computed via Birmingham. Yet the prescribed rates to Birmingham on all six classes are higher than those prescribed to Columbus.

"Another illustration: From Albany, N. Y., to Chattanooga, Tenn., versus intermediate points located on indirect or circuitous, but long-established, routes. The only route of the Atlantic Coast Line from Albany to Chattanooga is via Augusta, and the only route of the Seaboard Air Line is via Athens. The statement shows that the distances to both Augusta and Athens are less than to Chattanooga, although the report prescribes rates to Augusta on four classes and to Athens on all six classes higher than those prescribed to Chattanooga."

"The Southern carriers," continues the statement in another place, "can never voluntarily consent, nor could they be expected to subscribe, to any basis of rates that would place

Southern manufacturers at so serious a disadvantage as contrasted with Northern manufacturers in reaching the consuming territory within the South as is contemplated by the differential combination scheme of interterritorial rates herein proposed. The Southern manufacturers will be injuriously affected by a system of rates that will permit Northern manufacturers to ship into Southern territory at even the same level of rates that is applicable within the South, while Southern manufacturers, because of widely differing transportation conditions, cannot ship into Northern territory at the same level of rates that is applicable within the North. To accentuate this disadvantage by means of this differential combination basis, thus further circumscribing the destination territory in which Southern manufacturers can reasonably expect to compete on equal terms with Northern manufacturers, is to place upon their future development an unwarranted burden.

"The Southern carriers are vitally concerned in the rapidly increasing importance of the South as a manufacturing community. They are unalterably opposed, therefore, to any system of rates which will have a tendency to retard the natural growth and expansion of this development. We believe the adoption of this differential combination plan of rate making will inevitably have that disastrous effect.

"There is no evidence of record, so far as we have been able to develop, to support such a basis of rates. It goes far beyond the request of the Northern shippers who were, in fact, generally satisfied with the carriers' proposed adjustment. The latter was criticised on the ground that no reason had been shown for making the normal rate level higher than it would otherwise be in order to offset possible material reductions made by the carriers below the distance scale. If the rates from Northern manufacturing points to destinations in the South are to be made substantially lower than the mileage scale found to be reasonable, then the practical necessity of maintaining the carriers' revenue would seem to require that the normal level be made higher between Southern points than it otherwise would be in order to offset the lower level from Northern points. Thus the Southern manufacturers are not only handicapped by a higher level of rates in meeting the competition of Northern manufacturers, but the Southern manufacturers' rates must in turn be higher than they would otherwise be to make up the shrinkage in revenue on interterritorial traffic from Northern manufacturing points.

"We, therefore, most earnestly protest against placing this double handicap upon Southern manufacturers and distributors.

"In addition to the foregoing classes of discriminations, apparently unnecessary and unjustifiable, in favor of points in official territory and against points in Southern territory, the differential combination basis will create many instances where the adjustment will give undue preference to certain points in official territory as compared with other points in the same territory."

By far the larger part of the statement by the Southern railroad and steamship companies is devoted to technical considerations of the proposed rates, with very lengthy quotations from freight tariff sheets. The statement is in reply to the report made public by the Interstate Commerce Commission about August 1, and on September 5 the transportation companies were given a month's more time to prepare their answer, which is dated October 5 and which has lately appeared in printed form. It was filed with the Commission on November 7, but the latter has not made any further announcement concerning the case.

Considering the statement and its positive assertions as to the probable effect of the proposed rates upon Southern transportation conditions, it does not appear likely that the Interstate Commerce Commission will insist upon their acceptance



of it in its present shape; it was submitted to them for their acceptance or rejection, and they have rejected it in unmistakable terms and upon exceedingly strong grounds.

To attempt to impose upon Southern manufacturers and others such an inequitable rate adjustment as this is declared to be would be outrageous and tyrannical, and would doubtless result in all the confusion and distrust that the Southern carriers predict would follow its adoption.

### SHALL THE NATION'S LAWS BE DISREGARDED BY THE NATION'S SWORN OFFICERS?

**T**HE New York Herald-Tribune lately carried a news article to the effect that "thirteen supper clubs, restaurants and cabarets in the Broadway, Greenwich Village and downtown districts ACCEPTED padlocks yesterday from Emory R. Buckner, United States Attorney, in the FALL BARGAIN DAY at his office," and that "six others are still NEGOTIATING IN THE HOPE OF GETTING A BETTER BARGAIN" (caps ours).

First, what is this policy of Mr. Buckner to which "the acquiescence of the White House" is given?

Professedly, it is that "the business of the Government in the present emergency is to dry up the sources of supply and not waste its time and its money trying to run down petty bootleggers or side-door saloonkeepers."

Actually and positively, it is exactly the opposite—it is worse than a "compromise" between the Government and the law violators; it is complete surrender by the Government, as shown in New York, to lawbreaking distributors of unlawful liquor. The "sources" are not closed under the Buckner policy, but the "petty bootleggers and side-door saloonkeepers" are caught and are permitted virtually to name their own "bargains" as to the nature of their "punishment."

As far back as August 6, last, the MANUFACTURERS RECORD called attention to Mr. Buckner's "bargain days" for liquor-law violators, of which Mr. Buckner himself said: "IT IS LITTLE SHORT OF COMPOUNDING WITH CRIME FOR THE GOVERNMENT TO TAKE THIS DIRTY MONEY (the negligible fines imposed at his own suggestion) AND CALL IT RIGID ENFORCEMENT OF THE PROHIBITION LAW" (caps ours).

The Buckner policy may be to "dry up the sources of supply"; the Buckner practice is "trying to run down petty bootleggers" and cabarets, and then to recommend for them picayune fines and induce them to "consent" to "accept" a padlock.

The Prohibition Amendment to the Constitution and the Enforcement law are being violated with the acquiescence of the highest official Government officials in the land. This acquiescence is seen first in the free hand given to the practical politicians of the country, including primarily Representatives and Senators in Congress, to name the Prohibition enforcement officers for their respective states or districts. This acquiescence is seen further in approval of a practice of permitting law violators to bargain with the Government and to name their own penalties.

In short, no efficient effort is being made by the Government, with mighty few exceptions, to enforce the provisions of the Constitution and of the Federal law.

Proof of this assertion is given in the New York Herald-Tribune of July 27, last, which, under the caption, "'Bargain Week' Opens for 2000 Rum Offenders," said:

"With United States District Attorney Buckner urging light fines and no jail sentences for all who plead guilty \* \* \* Judge Garvin will wade into a calendar crammed with 2000 Prohibition cases in the Federal Court this morning."

That is the original Buckner method of "drying up the

sources"—the sources are ignored, the "petty" offenders are nabbed and the Federal prosecutor recommends to the Court that they be permitted to go on their way rejoicing, virtually unpunished.

Furthermore, in the recent padlocking cases in New York, Mr. Buckner graciously acceded to the pleas of proprietors "to have the date of padlocking delayed until after Thanksgiving"—no doubt so these places might have ample opportunity unlawfully to dispose of what liquor they still might have on hand.

The New York Herald-Tribune article puts it thus:

"In the day's negotiations with places he sought to close Mr. Buckner heard many appeals to have the date delayed until after Thanksgiving, the proprietors maintaining that for sentimental reasons and patriotic reasons their hearts were set on a Thanksgiving party.

"Whenever he could Mr. Buckner granted the requests, saying that one day more or less made little difference, and that all of the padlocking could not be finished up before Friday anyway. Accordingly, on the official padlocking schedule, the legend 'Wants Thanksgiving party' or something similar, was marked opposite certain names."

### MORE MONEY SHOULD BE SPENT FOR GOVERNMENT BUILDINGS.

**D**ISPATCHES from Washington report that Chairman Madden of the House Appropriations Committee has advised the President that he will recommend an appropriation of \$165,000,000 to be expended during the next six years for the erection of public buildings. Last year a bill authorizing the appropriation of \$150,000,000 passed the House but failed in the Senate. To this Mr. Madden has added \$15,000,000, stating that this extra amount is necessary to provide the money needed for 120 buildings authorized since 1913, but which have not been built because of the increase in the cost of construction. It is proposed that \$50,000,000, or nearly one-third of the total amount, shall be expended upon public buildings in Washington.

It is altogether probable that there is an absolute necessity for spending as much as \$50,000,000 to provide for the Federal buildings urgently needed in Washington for public affairs. Many documents of great importance are now housed in buildings which are not fireproof and which might easily be destroyed at any moment. It is a reflection upon the intelligence of Congress that this situation should have been permitted to continue to the present time. Every department of the Government having invaluable documents pertaining to Governmental matters should be housed in a building absolutely fireproof and proof against all other disasters.

But to minimize the buildings needed throughout the country by the expenditure of only \$115,000,000 during the next six years indicates a great lack of appreciation of the pressing need of new buildings for Governmental work. In many places, even in some of the larger cities of the country, the Government is renting buildings to be used for postoffices and other purposes at a rate of rent far above the rate at which the Government could sell its bonds with which to erect buildings. That this aboundingly rich country should permit itself to be so niggardly in its policy of public buildings as to permit bankers and real estate operators in many places to erect buildings for the Government on the plea that the Government is too poor to build them, and to charge rents which are far higher than would be necessary for the Government to pay through a bond issue, casts discredit upon Congress and upon the energy of the people back of Congress.

Take, for instance, the growing cities in many parts of the South from Baltimore all the way down. Many of them are housed in buildings wholly unfitted for their work. Some of these postoffices are inadequate to the extreme for the rush of business that is upon them. Many of the postoffices



in Florida, for instance, would have been suitable only for the days when Florida was a quiescent state, with no particular rush of business or population. The same thing is true in many other growing sections of the entire country, and larger postoffices and Government buildings generally are greatly needed, and needed as rapidly as they can be constructed.

But here is a plan for Congress to stretch over six years less than \$20,000,000 a year for the erection of such buildings. In the meantime business is hampered, postoffice clerks are forced to work in insanitary and overcrowded quarters, and the whole postal business is badly restricted.

No business organization with a command of capital would ever think for a moment of permitting such a condition to last as that which now prevails throughout this country in the lack of adequate public buildings. Not \$165,000,000 for the whole country, or \$115,000,000 for the country outside of Washington, should be the amount to be expended, but five times that amount to be spent during the next five years would scarcely equal the actual needs of the country and provide the needed Government buildings, without which Government business is hampered, the health of employees is sacrificed, and the business of the country is sacrificed by the interminable and intolerable delays in the handling of mails and other Governmental work.

### A BLUNDER OF THE ASSOCIATED PRESS.

THE Associated Press recently sent out from Key West a dispatch as follows:

"Increased vigilance of Coast Guard forces and Prohibition agents and prevailing rough seas has resulted in a near 'liquor famine' in Florida, while prices are soaring higher in this state than at any time since the Eighteenth Amendment went into effect, Coast Guard officials, of whom Capt. John G. Berry is chief, declared here tonight.

"Unless the waves which have lashed the Florida coast for the past several weeks, preventing the landing of contraband liquors, subside, Floridians are in for a 'cheerless Christmas,' these officials assert.

"Captain Berry tonight refused to comment upon the report that an anti-liquor armada is under construction at a shipyard on the Great Lakes to augment the Florida flotilla."

Just why the Associated Press should feel justified in referring to a "cheerless Christmas" because of a lack of contraband liquor we leave to the members of that organization to decide. To us it seems to be a piece of presumptuousness that should call down upon the agent who sent that dispatch the vigorous criticism of the management of the Associated Press. What right has the Associated Press to say that Christmas will be "cheerless" because the rum-runners may not be able to land their cargoes?

The very suggestion of a "cheerless Christmas" because of a lack of whisky is a direct insult to every Christian in the land, and the very thought that that day so sacred, a day so supreme in all human affairs, will be marred of its cheerfulness by a lack of contraband whisky is in itself sacrilegious. We are surprised that any daily paper, whatever its views on Prohibition, should give space to a dispatch which so directly slaps in the face the supremest event in all the world's history, which is intended to celebrate the day when the Son of God—indeed, God Himself, enwrapping himself in mortality—came down to earth in order that He might bring heaven and earth into harmonious touch and bring salvation to the world.

What impious, sacrilegious mind ever dared to suggest in an Associated Press dispatch that Christmas would be "cheerless" for lack of that deadly poison which has brought more sorrow and death into the world than all the wars of human history? If the Associated Press cannot find men who know better than to send out such a dispatch, surely it needs some reorganization.

### SOME INSIDE FACTS RELATING TO GERMANY AND LOCARNO.

"LOCARNO" has quickly passed into a phrase. Locarno becomes an expression of hope, and of doubt. Never was an international agreement provocative of so many mixed emotions. All eyes center on just one line, which is the western frontier of Germany. To all intents and purposes that becomes a neutralized line, at least for a period. It removes the zone of competition from the West to the East. Conflicts, if conflicts arise, will be localized at a distance from the hearts of the nations involved. "Locarno" is an expression of optimism, and a great man has said that absolute optimism is unmoral and not moral. Optimism, with reference to the stabilization of the western frontier, in the words of the same philosopher, Guixé, is "inertia." As for the East, and the vast possibilities and uncertainties that may follow peaceful penetration, direction of policies, shaping of international movements in the seething masses between Europe and the Yellow Sea, there is doubt, expectancy, wonder as to the outcome. "Locarno" did not reach that far. These were questions of a sort that nations, in their joint agreements, do not like even to mention. After the treaty it is realized that the realm of certainty is small, the surrounding envelope of uncertainty and doubt enormous.

Not many weeks ago, before Stresemann reiterated the old German policy of imperialism at the meeting of representatives of the former German colonies held at London, just on the eve of "Locarno," France was stirred deeply by the leaking of information that was intended only for the cabinet. L'Action Francaise published an eight-column report that had been submitted in August to the Government by M. Paul Tirard, French High Commissioner for the Rhenish provinces, in which he gives evidence that the entire policy of the German Government is directed toward a demonstration of inability to meet the obligations under the Dawes plan, so as to default on the required annuities, attributing her inability to the failure of the sources depended upon to produce the necessary income. M. Tirard adduced facts and figures to prove that Germany was deliberately reducing the income of the railways by official encouragement of auto-truck competition on a great scale and by offering improved canal facilities to handle greater amounts of traffic.

Whatever might be said about the relief of railways from the burden of low-class freights that can be moved more economically by canal, with intent to increase ultimately the net profit of the railroads from handling greater quantities of high-class freights under the general stimulation of trade through this ability to distribute raw materials more cheaply, the immediate effect would be, as M. Tirard affirms, to cut down the income of the railroads. This would be preparing to benefit the carrying trade of the railroads in future at the present expense of Germany's creditors. Furthermore, M. Tirard explains that there has been steady diversion of funds, counted on in part for meeting obligations under the Dawes plan, from the national treasury for furthering port improvements, canal building and betterment, and for a multitude of public works.

Never has Germany undertaken so extensive a program of internal public works as at the present time, but the utilization of funds for these purposes will render her unable to produce the cash for meeting her annual payment as agreed under the Dawes settlement. It is estimated that in these works Germany is absorbing not less than 2,000,000,000 gold marks this year. She is also extending credits to various states and is reducing the taxes with great rapidity. The income from taxation has dropped from 766,000,000 gold marks in January to 648,000,000 in February, to 601,000,000 in March, on down to 561,000,000 gold marks in June. Acute European critics have remarked that if Germany is thus pre-

paring to default on her obligations under the Dawes agreement, what is the significance of "Locarno"? This also gives greater point to M. Caillaux's insistence that the obligations which might be undertaken by France in settlement of her debt must be made to rest on the performance of Germany in her reparations. It also makes clearer why, after all that was done at Locarno, France should remain cold toward another conference for disarmament.

All this gives terrible emphasis to the perils of our accepting any international relations with the European group of nations, except individually for purposes of "amity and commerce." To quote Guixé again, it is well to remain "skeptical optimists."

### HOW TO CURE THE ANTHRACITE MINING TROUBLE.

**F**AR and away the most important resolution we think adopted by the National Founders Association at its meeting, the details of which were published last week, was the resolution in regard to the anthracite situation in Pennsylvania. The law in that state practically makes an absolute monopoly in anthracite mining, forbidding the employment of any miners except under certain conditions which give to the anthracite miners' union an absolute domination over the whole situation. In maintaining this law Pennsylvania is injuring itself, injuring its great anthracite industry and injuring the entire country.

There are many people in Pennsylvania who fully realize the iniquity of the law, but the politicians of that state have not had the moral backbone to see that this law was repealed.

The resolutions as adopted at the meeting of the National Founders Association were as follows:

*"Resolved, That the National Founders Association approves and endorses the resolution of the Manufacturers' Association of West Philadelphia to the effect that the intolerable situation in the anthracite industry, resulting in public hardship and uneconomic and un-American conditions in a great basic industry, is largely due to the Miners' License Law of the State of Pennsylvania and to the failure of that state to take proper steps to make effective the principles of the Anthracite Award of 1903.*

*"The anthracite field is entirely within the boundaries of Pennsylvania. The situation therein which excites the anxiety of the nation is wholly within the control of that state. Its failure or refusal to appropriately control it fortifies those who run to Washington in every local crisis which it is the business of the state to meet. Pennsylvania is, therefore, facing a challenge to the quality of its citizenship and the efficiency of local self-government.*

*"Resolved further, That this Association urges upon its members resident in Pennsylvania to do everything in their power to secure the repeal or modification of the Miners' License law and the recognition and enforcement of the principles of the Anthracite Award of 1903."*

### COMPARED WITH JULY, 1914, THE DOLLAR NOW WORTH 58.9 CENTS.

**I**N an interesting study of the cost of living by index numbers the National Industrial Conference shows that the purchasing value of the dollar based on the cost of living in October, 1925, was only 58.9 cents as compared with the dollar in 1914.

Between July, 1920, when the peak of the rise in the cost of living, according to this report, was reached, and October, 1925, there was a decrease in the cost of living of 17 per cent.

**P**RODIGIOUS improvement in the breed of American horses now may be expected in the South—horse racing and the attendant gambling have migrated from the North; and horse racing (and the attendant gambling), be it known, is conducted "to improve the breed of horses."

### FULL CO-OPERATION OF MANUFACTURERS WILL ENABLE CENSUS BUREAU TO ISSUE PROMPTLY 1925 MANUFACTURING STATISTICS.

**T**HE Bureau of the Census is making plans for the next biennial census of manufactures, which will cover the year 1925, as provided in the Act of Congress approved March 3, 1919.

In deciding upon the items to be covered by the census, the bureau consulted with the representatives of various manufacturers' associations with a view to securing, as far as practicable and without making the schedule too elaborate, information which will be of value to the representatives of the several industries concerned, and at the same time furnish a record of the progress of manufactures generally throughout the United States.

Recognizing the value and importance of this work, the MANUFACTURERS RECORD urges the full and prompt co-operation of all trade associations, chambers of commerce and individual manufacturers in the United States with the Census Bureau in its effort to compile complete reliable manufacturing statistics for the year 1925.

The blank forms upon which reports should be made will be mailed by the bureau to all manufacturers about January 1, and a report will be required from each manufacturer whose gross products are valued at \$5000 or more for the year 1925. It is to be hoped that every manufacturer concerned will have his records in such shape that he can fill out the schedule within a few days after its receipt, as the tabulation of each industry will not be made by the Bureau of the Census until reports are received from all manufacturers engaged in it. We therefore urge our readers to furnish this information, in case they are manufacturers, soon after January 1 in order that the Government may have the opportunity to compile as early as possible in 1926 the statistics which will show the industrial record for the year 1925.

### OVERCROWDED POSTOFFICES.

**F**OR many years the rush of tourist travel to Florida during the winter season has completely overcrowded the postoffices of that state. Long lines of people have had to stand waiting their turn to reach the General Delivery windows, and mail was sometimes delayed for a week or more before it could be distributed.

This year the situation has become extremely acute. It is altogether probable that in some of the growing cities of Florida people will have to stand in line for a block or more, waiting their turn to get to the General Delivery. The postmasters are put to their wits' end. The clerks are crowded to the limit of human endurance, and nobody can be quite satisfied. At many of these offices boxes were sold out long ago and those who would rent boxes cannot get them. No postoffice is one-half big enough for the business and no office has its needed supply of clerical help.

The congestion in the postoffices of Florida in many cases far exceeds the congestion of traffic on the railroads. The solution of the postoffice congestion, however, is far simpler than that of the railroads, but the trouble will probably last much longer. If Uncle Sam would simply make reasonable provision for such conditions and send to these growing towns enough men to handle the postal business with any kind of promptitude, he would be rendering a service to hundreds of thousands of people in saving the local postoffices from being unduly "cussed" when the trouble is not with them but with the lack of men to help, and on account of the lack of space.



# Concentration of Banking in England.

## WHAT CENTRALIZATION OF POWER, THROUGH CONTROL OF BRANCH BANKS AND THE DESTRUCTION OF INDIVIDUAL BANKS, HAS MEANT TO GREAT BRITAIN.

[While there is an active agitation in this country in favor of branch banking, the experience of England and of Canada should warn our people against the danger of the development of branch banking. The effort to give branch banking privileges to the great banks of this country is a menace to the prosperity of the nation. That system has proved a curse to England and to Canada.]

Arthur Kitson, president of the Bankers Reform League of England, in a striking article in the London Outlook sums up the evil results of the concentration of banking in Great Britain. We do not think Mr. Kitson's statement is at all overdrawn. In the light of the effort that is being made to develop a similar system in America, every well-wisher of this country should be on his guard.—Editor Manufacturers Record.]

By ARTHUR KITSON in the London Outlook.

Some twenty years ago if you had asked an American the name of the United States octopus he would instantly have answered, "The Standard Oil Company," and would then have wondered at your ignorance. He would have proceeded to enlighten you by explaining that there were very many members of the same family, such as the Steel Trust, the Meat Trust, the Tobacco Trust, the Electric Light Trust. More recently, it became apparent that there was one trust that transcended all others in its power and practically controlled them all. This power was the banking monopoly, which by controlling the national credit dominated not only the trade and industries of America, but also the lives and fortunes of the whole American public.

There was a time when the average Englishman thanked God that he was not as those poor, trust-ridden Americans. He had been brought up to believe that protective tariffs were the parents of monopolies and that free trade was the antidote for all such evils. Many of us, however, have learned the falsity of this claim by experience. In spite of our free-trade system this country is plastered all over with trusts, and, as in the case of America, the greatest trust of all is the banking monopoly. In this respect we are in a far worse plight than the Americans.

Although the banking business is dominated in America by a few individuals, there are some hundreds of independent banks whose object it is to assist the farmers and small traders. The United States is furnished with far better banking facilities than the British public. Where we have one bank to every 5000 of our population the Americans have one to every 1500. Moreover, their banks are not as ours, i. e., branches of five or six parent companies. Recent amalgamations have brought the banking business in this country under the control of about two dozen individuals who are able to make or break nine-tenths of the business men of this country merely by extending or refusing facilities.

Although the banking laws are responsible for this concentration of unlimited power in the hands of a few men, they have been left free to exercise their own judgment as to who and who shall not have the use of the national credit. For it should be remembered that the credit which our bankers control is not their property nor of their creation. On the contrary, it is exclusively the creation of the British nation and comprises all that the name of Great Britain stands for—namely, its productive facilities, the land, the labor, the capital, the skill, intelligence, and particularly the moral character of the people. For it is, after all, the standard of honesty prevailing which is the real basis of credit.

Fifty years ago the farmers, manufacturers and merchants of this country were in many respects far better treated in the matter of banking facilities than they have been since the era of the London joint stock banks. Hundreds of

country banks supplied the needs of the industrial classes in both an efficient and sympathetic manner. The country banker looked after his own business and took a personal pride in administering to the needs of his own townsmen. Ask the older inhabitants of our provincial towns which system they prefer, that of the country banker or of the service rendered by a branch of one of the London five.

It is a common thing to hear from the founders of many of our provincial industries that they owe their start in life to their local banker. The country banker knew his own people and was able to gauge their abilities and character. He could discriminate in the matter of apportioning and distributing credit in a manner that was both just and satisfactory.

With the advent of the London branch banks all this has been changed. Instead of the local banker, whose fortune and reputation were built and bound up with his townpeople, we have a local manager who is nothing more than a mere bookkeeper, often a stranger in the locality to which he is appointed, drawing a moderate salary and occupying no social position. He is also without power to grant loans of any amount, but must refer all applications for overdrafts to headquarters presided over by men who know nothing whatever of the local conditions.

The whole policy of the great London banks has been to secure as much currency from the provinces as possible, so as to be able to make loans in any direction that may seem profitable. It is well known that Germany's industrial power has been built up largely by the aid furnished by the London banks. These banks have become more and more cosmopolitan in character. And in consequence British trade has suffered in competition with foreign countries. In the days of the country bankers their prosperity varied with and depended upon that of the nation's prosperity. If industry became stagnant the bankers' profits declined, and when trade boomed the bankers' profits increased. Contrast this condition with the recent period of the slump in trade. At the very time when British trade and industries have been depressed more than they have been for the past 80 years our London banks have made the greatest profits in their history.

Outside of the Bank of England—which has always been cosmopolitan—our banks 50 years ago could not have flourished whilst our industries were falling into decay. It is safe to say that had we retained the country banks as they existed years ago the present era of unemployment would have been less severe and possibly might have been avoided.

Mr. Arthur (now Earl) Balfour was right when he said: "I would as soon intrust my health to a doctor whose knowledge of the pharmacopoeia was that of 1846 as I would intrust the trade and financial policies of this country to men who have learned nothing since the days of Sir Robert Peel and Richard Cobden." And yet the men who are today in control of these policies and who have been since the conclusion of the war are still believers in the obsolete and discredited theories of those dead statesmen.



# \$20,000,000 in Ship Contracts at Newport News.

FOREMOST SHIPYARD IN AMERICA LOCATED IN THE SOUTH—VAST AMOUNT OF SHIPBUILDING AND MISCELLANEOUS WORK NOW UNDER WAY.

By W. S. COPELAND, Newport News, Va.

In the accompanying statement of work now under construction or contracted for by the Newport News Shipbuilding Company is indicated the manner in which this corporation has "found itself" and pulled itself together after having been "torn asunder," so to speak, by the cancellation of its naval contracts, this resuscitation of a great industry forming an interesting chapter in the present-day history of Southern industry. The company does not give out for publication the contract price of each ship it builds, but one of the officers said that the aggregate cost of the ships under construction is something more than \$20,000,000. The list follows:

- One ship, 429 feet long, for the Porto Rico Line.
- One ship, 402 feet long, for the Clyde Line.
- Three ships, each 368 feet long, for the Merchants & Miners Transportation Co.
- Two ships, each 410 feet long, for the Clyde Line.
- One ship, 600 feet long, for the International Mercantile Marine, to be used on the Panama-Pacific line. This ship will be the greatest merchant ship ever built in an American shipyard. It is understood that two more ships of the same class will be built for the International Mercantile Marine, but contracts for them have not yet been let.
- One steam yacht, 160 feet long, for Harry Bingham.
- One steam yacht, 185 feet long, for Richard M. Cadwalader, Jr.
- One steam yacht, 188 feet long, for Galen L. Stone.
- One steam yacht, 150 feet long, for Hugh J. Chisholm.
- One 20-inch pipe-line dredge for the United States War Department.
- Two 150-foot grain barges for the Pennsylvania Railroad.
- Three 100-foot house barges for the Chesapeake & Ohio Railway Co.
- One 256-foot car float for the Chesapeake & Ohio Railway Co.
- Two 80-foot tugboat hulls for the Pennsylvania Railroad.
- Two of the above-mentioned ships have been launched and six are on the ways.
- Twenty caboose cars for the Seaboard Air Line Railway.
- Ten locomotives to be repaired for the Chesapeake & Ohio Railway Co. and ten more in prospect.
- Five hundred and eighty-four transmission powers for the Southern California Edison Company under contract.
- Contract for fabricating 26,000 tons of steel for pipe lines of East Bay Municipal district, Oakland, Cal.

During the World War this company was run to its full capacity in building ships of war and repairing transports, and at the close of the war it had naval contracts aggregating something like \$75,000,000. In order to do this work additional shipways and machine shops had to be erected and new machinery installed. The construction of the two battle cruisers for which the Government had contracted required the erection of a steel shipway costing \$1,000,000. In addition to the battle cruisers, there were three dreadnaughts of enormous size to be built, besides other craft, and the yard had a force of 10,000 men on the work when the telegraph flashed the intelligence from Washington that under the terms of the Arms Conference all but one of the ships under construction would be scrapped, and it was questionable whether or not even one of them, the West Virginia, then under construction, would be completed.

The effect on the yard was almost that of a destructive

earthquake, for there was little work on hand except naval work, and that was brought to an abrupt end. The management was utterly unprepared for the blow, for it had not had any intimation from the Government that it was to fall. It was suggested that the plant be put up to the highest bidder and sold for what it would bring, and the Huntingtons, who owned the plant, might well have done this, as they had ample other fortune; but they knew what it would mean to Newport News and the entire community to close the plant, and H. E. Huntington ordered the management to hold on to as many of the men as might be needed and go out in search of other lines of construction.

In the meantime the United States Shipping Board was making ready to have some of its ships reconditioned, and it was not long before bids were asked for reconditioning the Leviathan. The Newport News company secured the contract and, although it lost more than \$1,000,000 in carrying it out, the work kept the force together for many months, the Newport News shipyard secured valuable advertising throughout the country, and by the time the Leviathan was completed other lines of construction had been established. The Government also decided to have the battleship West Virginia completed here, and the company secured the contract to recondition another of the large ships of the Shipping Board.

In this way was the Newport News shipyard saved, and today it is in better condition than at any time in its history, save only in the war period, for it has diversified its production and is doing much work other than that of shipbuilding. It has repaired 1390 coal and box cars and one passenger car; it has built 5239 coal cars, box cars, gondolas, automobile cars and cabooses; it has rebuilt 104 locomotives, including 10 now under way; it has built turbines for Muscle Shoals, and will build more; it has built lock gates and regulating gates for the same; it has built turbines and regulating gates for commercial concerns; it has built not a few inlet gratings and trash rakers for water-power concerns; it has built lamps for regulating traffic on roads and streets, and in addition to making its own paints it has built up a considerable trade in selling its paints to other concerns to be used in painting the hulls of ships.

The company will continue its diversified program and will add other lines of construction as opportunity serves. In this way it will no longer be dependent altogether on ship construction to keep the works employed, and yet its facilities for building ships are so extensive that the new line of construction recently introduced will in no way interfere with the greater industry of shipbuilding, which it considers "the noblest of all forms of construction" and the highest expression of mechanical art. Indeed, one department will help the other, and the company has solved the problem of combining car building, engine repair and the like with the building of ships, great and small, thus assembling many forms of constructive work in one plant.

The company now has a force of 4900 men on its payrolls, and the number will be increased to 6000 as soon as the work on its new ship contracts is well under way.

The payroll is now running to about \$125,000 a week, and that amount will be increased, of course, as more men are taken on.

In the opinion of one of the officers of the company, who

requested that his name be not used, the outlook for shipbuilding is rather brighter than it has been for some time past. In the first place, he points out, the population of the United States is increasing at the rate of more than 1,000,000 a year—some place it as high as 1,500,000 a year—and more population, of course, calls for an extension of the nation's transportation facilities—for more ships as well as for more railroad equipment and motorcars. This official also is an optimist on Florida—not on any Florida land boom, but on Florida as a playground for the rich and a land of almost unlimited agricultural potentialities, and he believes that it is destined to be the permanent home of millions of thriving, energetic Americans who cannot be called rich, except in their capacity for production. Florida is even now shipping nearly 100,000 carloads of early vegetables and citrus fruits annually to the Northern and Western markets, and it has great industrial possibilities in addition to what it is now doing.

And he believes that the development in Florida is only a part of the development generally throughout the South. This development and increase necessarily call for a greater number of ships from year to year for the coastwise trade. The great ship which the Newport News Company is now building for the International Mercantile Marine is to be operated in the New York-Miami steamship service, and two other ships recently built by the company for the Clyde interests are now regularly employed in that service. Also the company expects to build in the near future two more great ships, each 600 feet long, for the Panama-Pacific line. The wealth of the country has enormously increased in the past few years, and, as the shipyard official remarks, wealth must have its fling either in constructive work or in play—usually in both. Much of the increased wealth is flowing into the South, besides what the South itself has created, and more and more of it is going to the Florida pleasure resorts. All this demands greater transportation facilities between the North and the South.

This official also believes that Congress soon will take a more businesslike view of the American merchant marine and adopt some form of aid to American shipping in the overseas trade. In that event there naturally would be more work for American shipyards in building vessels for a larger merchant marine.

The Navy Department will have at least one important contract to be awarded to some American shipyard early in the coming year. Two cruisers of 10,000 tons will be built in 1926. One of these will be assigned to a navy yard, but the other will be let to private contract, and it is understood that bids for the work will be opened in January, 1926. The Newport News Shipbuilding & Dry Dock Co. is well equipped for building the cruiser and will be a sharp competitor in the bidding.

Again, it is hard to realize that four years of the 10-year naval holiday have passed and in six years more the United States Government, under the terms of the limitation of armament treaty, will be permitted to lay down two more great battleships. Whether or not there will be another conference in the meantime and the "naval holiday" extended is a matter of speculation, but there is at least the prospect of two battleships to be let to contract in six years to come, or in the year 1931, and approximately two more may be laid down in each year thereafter under the terms of the international agreement.

However that may be, the Newport News Shipbuilding & Dry Dock Co., with over \$20,000,000 worth of ship contracts on hand, with reasonable prospect for more, and with a fairly large supply of contracts for other constructive work, is in a comfortable situation for some time to come and there is a spirit of pronounced optimism in the management.

The labor situation in the yard also is quite satisfactory, so far, at least, as the relationship between the management and the men is concerned. It was never more pleasant and friendly, and there has been a notable improvement in efficiency in the past two or three years, or since the force was reorganized. The only difficulty is in getting additional men. With the factories throughout the land all busy and a brisk demand for workmen, skilled and unskilled, and in a community like this, where the reserved supply is small, the question of putting on an additional force of 1000 men is a problem which is giving the management some concern, but as the men will be taken on gradually there is no apprehension that the full quota will be lacking when the need comes. The addition of 1000 workmen in one plant is no mean consideration in a town of the dimensions of Newport News, and with smaller industries here working full time, with the port doing the greatest business in its history, and with the Old Dominion Land Company in new hands, the seaport town to which Collis P. Huntington gave birth when he extended to it the Chesapeake & Ohio Railroad and built his shipyard is on more substantial foundations today than ever before and its prospects brighter. It is also believed by the substantial men of this community that if the Van Sweringen merger is allowed by the Interstate Commerce Commission the Chesapeake & Ohio Railway Co. will make such improvements in its terminals here as will add greatly to the traffic and prestige of the port.

In conclusion it may be of interest to state that the Newport News Shipbuilding & Dry Dock Co. has gained its reputation among shipbuilders by adhering to Mr. Huntington's motto: "We shall build good ships here—at a profit if we can; at a loss if we must—but, always, good ships."

### Asheville Church Bids This Week.

Asheville, N. C.—Bids will be received on December 5 for the church and Sunday-school building here for the First



\$525,000 STRUCTURE FOR FIRST BAPTIST CHURCH.

Baptist Church after plans by Douglas D. Ellington, architect, Pittsburgh, Pa. The church structure will be fireproof, the Sunday-school building fire-resisting.

### \$1,000,000 St. Louis Theater and Business Block.

St. Louis, Mo.—A \$1,000,000 theater and business block will shortly be under way here, the project being promoted by Reuben Levin of Chicago. The Wenzlick Realty Co. will have charge of the property upon its completion. The Gohman-Levine Construction Co. has the general contract. E. P. Rupert, Chicago, is the architect.

The building will occupy a lot 137 by 180 feet, and will consist of a theater to seat 1800, six stores and several apartments.



# \$331,000,000 of Public Improvement Bonds Sold.

## HIGH RECORD SET FOR SOUTHERN SECURITIES MARKETED IN 10-MONTH PERIOD.

The par value of 1183 issues of public-improvement bonds marketed in the 16 Southern states during the first 10 months of this year as reported weekly in the financial news columns of the MANUFACTURERS RECORD amounted to \$331,600,900. In the corresponding period of the preceding year the value of 1153 issues sold was \$312,050,695.

Bond issues for miscellaneous enterprises, including bonds for work not specifically covered in the other classifications, hold first place, the par value of 334 issues sold totaling \$123,204,397. Next in importance in the amount of money involved were bonds sold for the building of roads, streets,

paving, bridge, viaduct and culvert work, with 381 issues having a par value of \$121,038,003 in the 10-month period. School bond issues numbered 298, with a par value of \$47,367,300. For sewer, drainage, irrigation and water-works projects 170 issues were marketed, the total par value aggregating \$39,991,200.

Bond sales in Florida, January to October, inclusive, amount to \$93,900,000, representing the par value of 245 issues, thus giving that state first place. Missouri is second, with sales amounting to \$34,900,000 for 40 issues. Texas bond sales stand third in the list, the par value of 166 issues sold totaling \$32,300,000.

### SUMMARY OF SOUTHERN PUBLIC-IMPROVEMENT BOND SALES—10 MONTHS, 1925.

State	Roads	Schools	Sewers	Miscellaneous	Total values
Alabama	15 \$9,094,000	9 \$3,012,000	5 \$315,000	25 \$4,588,400	54 \$17,009,400
Arkansas	21 1,620,000	7 457,000	4 529,500	16 4,031,500	48 6,638,000
Florida	75 35,708,000	59 15,470,500	20 4,017,000	91 38,709,722	245 93,905,222
Georgia	12 1,794,500	14 3,732,800	4 130,000	4 428,000	34 6,085,300
Kentucky	10 1,144,000	7 581,000	5 2,332,000	5 714,000	27 4,771,000
Louisiana	26 4,664,500	14 1,909,000	13 1,075,000	13 2,619,000	66 10,267,500
Maryland	12 3,083,000	7 1,960,000	7 2,410,000	6 9,952,500	32 17,405,500
Mississippi	33 4,656,500	13 573,500	5 76,500	9 3,119,000	60 8,425,500
Missouri	6 15,325,000	10 2,607,000	12 11,842,000	12 5,126,000	40 34,900,000
North Carolina	59 11,896,500	31 3,489,500	22 1,219,500	41 12,606,000	153 28,211,500
Oklahoma	7 1,720,000	14 1,628,000	7 941,500	14 1,110,125	42 5,399,625
South Carolina	21 3,164,000	19 1,049,000	7 3,927,000	15 12,809,000	62 20,949,000
Tennessee	27 3,569,003	15 1,675,000	9 2,370,000	35 10,163,650	86 17,777,653
Texas	37 8,834,000	60 5,602,000	45 6,620,200	24 11,115,500	166 32,371,700
Virginia	7 1,070,000	10 534,000	5 2,186,000	19 5,419,000	41 9,209,000
West Virginia	13 13,695,000	9 2,887,000	...	5 1,693,000	27 18,275,000
<b>Totals</b>	<b>381 \$121,038,003</b>	<b>298 \$47,367,300</b>	<b>170 \$39,991,200</b>	<b>334 \$123,204,397</b>	<b>1183 \$331,600,900</b>

### BOND SALES FOR SEPTEMBER, 1925.

State	Roads	Schools	Sewers	Miscellaneous	Total values
Alabama	1 \$9,500	1 \$650,000	...	2 \$145,000	4 \$804,500
Arkansas	2 105,000	...	...	...	2 105,000
Florida	4 1,963,000	3 4,133,000	...	9 1,307,500	16 7,403,500
Georgia	...	...	...	...	...
Kentucky	...	...	...	...	...
Louisiana	5 460,500	1 600,000	...	...	6 1,060,500
Maryland	1 58,000	...	...	1 15,000	2 73,000
Mississippi	2 266,000	1 80,000	1 \$20,000	1 225,000	5 591,000
Missouri	1 7,500,000	...	...	...	1 7,500,000
North Carolina	6 785,000	3 918,000	4 180,000	2 65,000	15 1,948,000
Oklahoma	...	...	...	1 10,000	1 10,000
South Carolina	1 219,000	1 10,000	1 77,000	2 410,000	5 716,000
Tennessee	5 352,000	4 450,000	1 70,000	3 580,000	13 1,452,000
Texas	3 705,000	...	5 935,000	1 1,500,000	9 3,140,000
Virginia	...	...	1 40,000	2 164,000	3 204,000
West Virginia	2 600,000	1 600,000	...	...	3 1,200,000
<b>Totals</b>	<b>33 \$13,023,000</b>	<b>15 \$7,441,000</b>	<b>13 \$1,322,000</b>	<b>24 \$4,421,500</b>	<b>85 \$26,207,500</b>

### BOND SALES FOR OCTOBER, 1925.

State	Roads	Schools	Sewers	Miscellaneous	Total values
Alabama	1 \$245,000	...	...	...	1 \$245,000
Arkansas	4 277,000	1 \$35,000	1 \$232,000	2 \$194,500	8 738,500
Florida	7 3,629,000	2 400,000	3 272,000	13 5,947,000	25 10,248,000
Georgia	1 97,500	1 25,000	...	...	2 122,500
Kentucky	...	...	...	...	...
Louisiana	2 330,000	2 340,000	...	...	4 670,000
Maryland	...	...	...	...	...
Mississippi	2 650,000	1 25,000	...	2 300,000	5 975,000
Missouri	...	...	1 50,000	1 4,139,000	2 4,189,000
North Carolina	2 541,000	...	1 75,000	1 15,000	4 631,000
Oklahoma	1 100,000	...	...	...	1 100,000
South Carolina	...	1 21,000	...	1 1,000,000	2 1,021,000
Tennessee	...	1 250,000	...	1 1,000,000	2 1,250,000
Texas	3 546,000	4 237,500	3 2,835,000	1 30,000	11 3,648,500
Virginia	...	...	...	1 100,000	1 100,000
West Virginia	...	2 318,000	...	2 1,250,000	4 1,568,000
<b>Totals</b>	<b>23 \$6,415,500</b>	<b>15 \$1,651,500</b>	<b>9 \$3,464,000</b>	<b>25 \$13,975,500</b>	<b>72 \$25,506,500</b>

## \$2,500,000 for Additional Water Storage Facilities at Baltimore.

The city of Baltimore has acquired a tract of land on the upper part of the Gunpowder River with a view to building a dam in the northwestern part of Baltimore county, 12 miles above the present Loch Raven dam, to provide in conjunction with the Loch Raven project a daily water supply of 190,000,000 to 200,000,000 gallons. The new project will involve the expenditure of about \$2,500,000. The reservoir created will have a capacity of 23,000,000,000 to 28,000,000,000 gallons of water, and will be six and a half miles long and

three miles across its widest part. The total reservation, including watersheds, will be 9000 to 10,000 acres.

The proposed dam will be 120 feet high and contain 91,000 cubic yards of concrete. A bridge will cross the dam on arches. A new road leading to this bridge from the Parkton road will be constructed, as will six and a half miles of other new road and two other bridges.

The Mizner Development Corporation, Boca Raton, Fla., is reported to have awarded contract for the erection of 200 residences at Boca Raton to cost \$10,000 each.



# A Motor Journey Through the Central South.

By FRANK GOULD.

Motoring through the South at this time of the year is a delightful experience. If one is going to Florida, where most of the cars seem to be bound, or if business or pleasure at some other point form the objective of the trip, it is well for those who haven't had the experience to know that it is possible to see the South in a very intimate and enjoyable way over good roads. They compare very favorably with the roads in other parts of the country and most of the time are of the best, but between the centers of population it may be counted on that one can today have the satisfaction of journeying over a road that is traversible in all kinds of weather, and there is added satisfaction in the fact that at the end of each day's run a good hotel awaits the traveler. With the increase in good roads, good hotels follow as a matter of course. This is so North and South.

The present trip was through the central South, going down by way of the historic Shenandoah Valley through southwest Virginia, traversing Tennessee from north to south and halfway through Georgia to Atlanta, then back through the Carolinas by way of Asheville, through the center of Virginia and connecting again with the Shenandoah Valley at Roanoke. On the southward journey, if the objective is Florida, it is possible to go by this route, which is called the western route by some in contradistinction to the route that traverses the eastern part of Virginia and the Carolinas, and by joining the Lee and Dixie highways at different points where the roads cross be assured of comfortable traveling conditions all the way. From Atlanta to Florida road conditions may be judged by the time made on the trip by a too fast driver, who stated he had just made the run from Daytona, Fla., to Atlanta—over 400 miles—in thirteen hours.

From Baltimore to within 50 miles of Knoxville, Tenn., the road is as smooth as a city street, except a stretch of 12 miles, which is rough but of stone construction and perfectly safe in wet weather. It is a hard-paved highway all the way.

If there were no other reason for the trip, Kingsport, Tenn., would justify the journey. Here the mountain people of the Cumberlands are being taught the advantage of industry, and it is such an interesting story that it will be alluded to in another article. The Shenandoah Valley, which runs from Hagerstown, Md., to the Tennessee line at Bristol, has been described so often that it is perhaps needless to attempt any further description here. It is famous for its history and its beauty. In late October, when the mountain slopes are colored by nature's most glorious tints, it would be difficult to imagine a more beautiful sight than that which is before the motorist practically from one end of the Valley to the other. All down through Tennessee the country is similarly charming. The condition of the farms, the attractive homes, the cleanliness and the air of prosperity evidenced everywhere make it a trip long to be remembered. This is a part of the historic old South that has always been a rich agricultural section, and today the fields are teeming with herds and flocks. Probably more stock—cattle, sheep, hogs—is being raised to the acre than in other similar areas in the East. I saw more livestock in that section in proportion to distance traveled than I had ever seen except in Holland.

The road runs smoothly and alluringly over mountains by easy grade, and through valleys that are ever inviting. From Bristol to Kingsport, Tenn., south by way of Knoxville and Chattanooga, passing through Sweetwater, Athens and Cleveland, Tenn., are charming villages of the old South, with asphalt and cement streets now, and with busy modern stores and factories. Knoxville and Chattanooga, of course, have

metropolitan hotels and their streets teem with traffic. It should be said right here that no difficulty is experienced in following the route through this part of the South. The highways are numbered and the numbers are plainly stamped on the telegraph or telephone poles. It is a simple matter to follow them even through congested districts, around turns and at busy corners. This is especially true in Georgia, South Carolina and North Carolina, and of all states North Carolina has probably the most complete system in this respect. Another thing was particularly noted: Only once on the trip was a request made by anyone for a lift. This by a school boy who was late. There were no spongers in the guise of hikers who asked for a ride.

Atlanta was reached in the dark over strange roads that were somewhat muddy from three days of rain. It is the same hustling Atlanta, with more hotels than ever and all doing a thriving business. The sand-clay roads of Georgia and Carolina are smooth and fast. They are wide and plainly marked, so that a definite schedule may be figured out and maintained. The matter of road improvement is uppermost in all of these states. The people see the value of good roads and what they bring in their wake.

Tennessee's appeal to its voters to "Help lift Tennessee out of the mud" has had its effect, and it is possible to go, not only from one side of the state to the other, from north to south and from east to west over hard highways for a good part of the way, but there are also many lateral roads connecting with the main thoroughfares, which give promise of soon making Tennessee a rival of North Carolina.

The story of North Carolina roads has been told. They are extending these roads in all directions. Boulevards through the mountains and sandy places—wide, safe and smooth. And prosperity!—North Carolina is rivaling Florida. Its system of road marking is the best the writer has ever seen, and he has toured the eastern part of the country from Maine to Florida. They have a saying that it is harder to get lost in North Carolina than to find one's way in some states. One can go through the most congested streets without asking direction by simply following the route number, which reaches to the point of destination. Every road in the state is numbered, and maps issued by the State Road Commission are available for everyone. It is no wonder that the South American delegates, who last year attended a road congress at Washington, were taken by the Government to North Carolina where they could best see the most modern and most scientific scheme of road building which is being carried out anywhere. Western North Carolina is undergoing a boom in real estate. A great amount of building is going on and it would be difficult to imagine a more glorious country in which to live. The mountains are accessible now, and by wide, smooth, easy grades.

Asheville is a city of fine hotels. Our stay was at Grove Park Inn, which is unique among the hotels of America. It has a superb setting on the side of Sunset Mountain, which yielded the rock from which the hotel was built. It is unique in its architecture and in its operation—a place for golf or complete rest, with every possible comfort amid unmatched natural surroundings.

The road back was taken through the center of the state to see more of North Carolina's development—over Black Mountain, through Hickory, Statesville, Salisbury, High Point and Greensboro. For scenic grandeur and perfect road conditions there cannot be found a more perfect day's ride.

From Greensboro there is a choice of several roads north, either by way of Richmond, or directly north through Danville and Lynchburg, or by bearing a little to the west and

coming out in the Shenandoah Valley again at Roanoke. This part of the journey from Roanoke to Winston-Salem or Greensboro has been greatly improved, and by the time this is written a new modern highway from Roanoke to Rocky Mount, Va., will have been completed. So that the motorist from the North, going to the far South, can either go by way of the Shenandoah Valley to Bristol and then across Tennessee and Georgia, or can bear left at Roanoke and have a good road reach through the center of the Carolinas, and then pursue his trip to whatever point he may wish to reach.

The so-called eastern route, by way of Washington and Richmond, is, of course, always available to travelers from the Northeastern states.

### A Fine Publication About Our Southeastern Cities.

The Southeastern Cities Edition of the City Builder, Atlanta, for November is a splendid publication. It is published by the Extension Bureau of the Atlanta Chamber of Commerce, the editor being Louie D. Newton, upon whom it reflects great credit for the good taste and skill with which it has been prepared and printed. The front cover page carries a bird's-eye view map of the southeastern part of the United States, locating the chief cities from Richmond to Miami and from Louisville to New Orleans, as well as others between those limits. To turn over the pages within is to obtain in rapid succession glimpses of the beauties of a large number of these centers of industry and advancement, the pictures being accompanied by adequate descriptive matter recording the activities and aims of different communities.

The introductory article is by Richard H. Edmonds, editor of the MANUFACTURERS RECORD, with the title "A New Era of Friendliness Is Dawning; The Spirit of Co-operation in Southern Upbuilding." Roger W. Babson writes on "The Future of the Southeast." and B. C. Forbes on "Business Conditions the Country Over." Among the articles on individual cities are the following: Birmingham—World's Growth Record; Louisville—The South's Largest Industrial City; New Orleans—Where the World Comes to Play; Raleigh—The Capital of Good Roads; Richmond—A City of Sure Foundations; Memphis—Heart of Mississippi Valley; Chattanooga—The City in the Clouds; Greenville—Textile Center of the South; Charlotte—The Queen City of the Carolinas; Montgomery—The Heart of Alabama; Nashville—The Athens of the South; Shreveport—The City of Oil and Lilies. Included also are the cities of Tampa, Asheville, Jackson, Charleston, Columbia, Spartanburg, Macon, Savannah, Augusta. An interesting article by Cator Woolford of Atlanta deals with "The Human Element in Business."

Mr. Newton, the editor of the City Builder, says in his editorial, "Greetings" among other things: "Atlanta joins hands with her sister cities in a covenant of rededication to the tasks of development, tasks which we can gloriously perform if we work together." This expression is indicative of the spirit which pervades this issue of the periodical, shining out in every line of its contents, both written and illustrated.

### \$10,000,000 Development and Construction Program.

Miami, Fla.—The properties of the Titusville Beach Estates and the De Soto Beach Development Co. have been consolidated, and announcement has been made by the Rock Park Development Corporation that a resort and recreational city will be built, involving ultimately the expenditure of \$10,000,000. The construction program includes a casino, a \$1,000,000 hotel, paved streets, churches, schools and public buildings, together with a boardwalk three miles long. In addition 1000 residences are proposed.

### 25 to 30 Hotels Building or to Be Built in South to Be Operated Under One Management.

Griner Hotels, Inc., Dixie Chain.

Jacksonville, Fla., November 19.

#### Editor Manufacturers Record:

The Griner Hotels, Inc., contemplates the placing in operation of from 25 to 30 new hotels in Florida, Georgia and other Southern states within the next two years.

All these hotels will be new, and a number of them are already under construction. Construction work will begin on several of the others within the next few months. However, none of these new hotels is being built by Griner Hotels, Inc. Their construction is in the hands of corporations in the communities in which they are to be built, Griner Hotels, Inc., simply taking long-term operating leases on them when completed.

So far, Griner Hotels, Inc., has made arrangements for directing the operation of new hotels in the following places:

Bradenton, Fla.—Hotel Dixie-Grande, 175-room fireproof hotel; now nearing completion; expected to begin operation during December or January; Community Hotel Corporation of Bradenton, owner; Frank Winn, Tampa, Fla., architect.

Stuart, Fla.—Hotel Dixie-Pelican, 50-room hotel, now nearing completion, expected to begin operation in January; Pelican Hotel Company, owner; Pfeiffer & O'Reilly, Miami, architects; cost, \$150,000.

Homestead, Fla.—Hotel Dixie-Palms, 108-room fireproof hotel; Palms Hotel Company, owner; Harvey & Clark, West Palm Beach, architects; cost, \$300,000.

Palmetto, Fla.—Community Hotel, 78 rooms, to be built on Manatee River, across from Bradenton; Community Hotel Corporation, owner; Felch & Southwell, Tampa, architects; cost, \$250,000.

Ocala—Hotel Marion, 100-room community hotel; Ocala Community Hotel Company, owner; Peebles & Ferguson, Norfolk, Va., architects; cost, \$450,000.

Panama City, Fla.—Hotel Dixie-Sherman, 100-room community hotel; St. Andrews Bay Community Hotel Corporation, owner; G. Lloyd Preacher & Co., Atlanta, Ga., architects; cost \$500,000.

Valdosta, Ga.—Hotel Daniel Ashley, 132 rooms; Daniel Ashley Hotel, Incorporated, owner; Dougherty & Gardner, Nashville, Tenn., architects; cost, \$500,000.

D. G. TINSLEY,  
Director of Advertising and Publicity.

### \$15,000,000 Project Announced at St. Petersburg.

St. Petersburg, Fla.—The N. E. Jones Development Co. has announced plans for a \$15,000,000 subdivision development near the Tampa approach to Gandy Bridge. A hotel to cost \$2,000,000 features the construction program. Public utilities, sunken gardens, lagoons, yacht basins, seawalls, wide esplanades, boulevards and bathhouses will be installed.

Orders have been placed for a large amount of construction equipment and for miscellaneous materials. It is proposed to use three shifts of men to rush the work.

### \$700,000 Theater to Be Erected at Mobile.

Mobile, Ala.—The O. M. Gwin Construction Co. of New Orleans has been awarded the contract for construction of the new Saenger Brothers theater to be built here at a cost of about \$700,000, including the site and furnishings. Work is expected to begin promptly after plans by Emile Weil, architect, of New Orleans.

### Plans Under Way for \$500,000 Apartment.

San Antonio, Texas.—H. C. Thorman, local realtor, has acquired 59 lots in a fast-growing residential section here and has had preliminary plans prepared by Phelps & Dewes, architects, for a 10-story apartment building estimated to cost \$500,000. The structure will be of reinforced concrete and brick and will feature the efficiency type of apartments.



# The Allies' Debt Situation as Seen by Our Readers.

## "Owe It to Ourselves Not to Do a Mean Thing."

Law Offices, Marbury, Gosnell & Williams.

Baltimore, Md., November 19.

### Editor Manufacturers Record:

I have read this morning the statement appearing on the cover of the MANUFACTURERS RECORD for November 19, headed "Our Relation to the Allies," in which you present in such striking fashion, though in a short compass, the case for the cancellation by us of the so-called "Allied debts."

I am pleased to see that you emphasize that we, the American people, owe it to *ourselves* to cancel these debts. In other words, that we owe it to *ourselves* not to do a mean thing.

W. L. MARBURY.

## Correct Sentiment and Sound Economically.

Commerce and Finance.

New York, November 18.

### Editor Manufacturers Record:

Your article of September 24 on "Do We Not Owe Our Allies More Than They Owe Us?" is easily the ablest presentation of the true business method of settling the international debts—urged in Commerce and Finance since the war ended—that I have seen. Correct in sentiment, it is also economically sound.

The contention of President George M. Verity of the American Rolling Mill Co. in your issue of November 12, that "the war was bred and fought in Europe," will not quite hold water. It was bred of international relations generally, for which the United States itself has some share of responsibility, having done its share of the reaching for economic advantage which Germany sought with small success to engage in and so struck out to gain by force what she could not gain by finesse.

These conditions have been changed for the worse rather than the better since the war, in which, too, we have done our part, and unless this tendency is altered it will be but a question of time—shorter perhaps than many think—when another outbreak will occur. Of course, no one knows who will start it, but it will be by some nation believing itself to be getting the worst of the deal.

STEPHEN BELL, Foreign Editor.

## Suggests Cancellation for Debts Assumed Between March, 1917, and November, 1918.

G. H. Williams,

Attorney-at-Law.

Dublin, Ga., November 24.

### Editor Manufacturers Record:

I have kept up with the different views expressed in your good paper on the Allies' debts to the United States and, like all thinking people, I find myself following the same desire in my heart to force my mind to the will and wishes already fixed.

I decided a long time ago that we should be paid for all advancements made to them before we entered or declared war, and I think the Allies should pay us for all loans made for the purpose of reconstruction after the armistice, but I do not think we should require of them payment of advancements made from the time we entered it in March, 1917, to the time it ended in November, 1918. It was certainly our war during this period, and all that went into it went to the cause of the war and not to the Allies. In my opinion, the Allied debts should be settled with us on these terms.

G. H. WILLIAMS.

## Why Mr. Hall Takes Issue With Us.

Decatur, Ga., November 6.

### Editor Manufacturers Record:

Believing in your sincerity of purpose, especially as regards all subjects carried in the MANUFACTURERS RECORD, I herewith submit the result of some further thought on the subject of Europe's debts to the United States, trusting you will be tolerant enough to print a view opposite your own.

In a recent issue of the MANUFACTURERS RECORD there appeared a tremendously clear-sighted article on the above-mentioned subject written by W. J. Casey of Baltimore; in that article the plea is made that the "moral obligation" be found. This is also my plea. Find the individual's obligation to his respective Government. Find said Government's obligation to the said individual. Then find the moral obligation existing between said Governments and adjust said obligation on the resulting basis, with interest, no more no less. Our Government is morally obligated to do so; our citizens expect it. We are not seeking a pound of flesh nor do we propose to yield a pound of flesh.

When we entered the World War we committed ourselves to the policy of enforcing respect for moral obligations. Shall we allow Europe to wheedle us into the confession that our policy is a fallacy; that contracts, treaties and moral obligations should be treated as mere scraps of paper? Perish the thought! Our Government prizes our honor above the momentary satisfaction of being patted on the back and called a "good fellow."

Payment is expected, collection must be made; no other course is open, no other course is possible from a moral, political or Christian standpoint, of which more will be said in this article presently.

Europe is asked to admit her moral obligation at this time and to pay as she is able. Europe cannot afford to do other than as requested in this matter; any other course would place Europe in the beggar's category; her status would become that of a moral bankrupt. Arguments to the contrary smack of sentimentalism, socialism, sovietism or worse. However, this can be no surprise to those informed as to the source of most such argument. That socialism and sovietism are rampant in Europe is an open secret.

Duty to ourselves, to those who paid the supreme sacrifice and to Christian civilization the world over demands that any and all agreements entered into shall be kept sacredly inviolate. Any suggestion to the contrary is non-ethical, to say the least of it.

Incurring an obligation subsequent to a previous obligation, the incurring of which delays settlement of the previous obligation, should not be condoned. This is an obvious fact from any possible viewpoint, unless it be the view of militaristic Socialist or Soviet. Business does not and cannot condone it, as evidenced by the fact that credit is withdrawn from the individual or corporation which resorts to such practice. That practice will shake public confidence as to the stability of any individual, corporation or nation involved therein. President Coolidge probably had this in mind when he made the now famous reply, "They hired the money"; the dollar is worthy of its hire.

The press should bear this in mind aside from the question of loyalty to our own country and to our constituted Governmental heads. In this connection it may be said that he who takes issue with his own country in favor of some other country places himself in a position wherein he may be charged with non-patriotism, disloyalty or worse, without his having legal recourse in the matter.

Now, to view Europe's debts to us from the Christian angle. Christian duty demands that a promise made is a promise kept; a loan made implies return of or payment for that which is loaned. Prodigality precedes poverty; poverty is the parent of crime. As such it behooves Christians to give their undivided attention to domestic conditions, as we stand indicted before the world as the most lawless and, therefore, the most criminal nation on earth.

Can we afford prodigality to the extent of giving away \$12,000,000,000, thereby inviting poverty for our widows, orphans and cripples so placed because of our participation in Europe's war? Oh, you say our Government will take care of our war widows, orphans and cripples; but can it? With constant pressure being brought to bear for a cut in taxes, how can it? As an illustration of how retrenchment affects a disabled ex-service man, I shall (if you will pardon



me) mention the most recent instance as involves my own case, to wit: On entering the military service of our country during the World War I possessed a few thousand dollars' worth of old-line and fraternal insurance. While in the service my pay was not sufficient to keep the premiums paid thereon; as a result I lost all the insurance I had carried as protection except the \$10,000 Government insurance, which was very cheap and on which I managed to keep the premiums paid up on my small pay of something like \$30 per month.

I was discharged from our country's service with a disability incurred in line of duty. This rendered me ineligible as an insurance risk and my disability kept me from resuming gainful civil pursuits. However, from the pittance allowed me I managed to live and pay premiums on my Government insurance until the summer of 1922, when it appeared as though the balance of my life would be spent in a hospital. I made application for and received the benefit of Clause 409 of the War Risk Insurance Act, which permits a disabled veteran to waive payments on his Government insurance and have the premiums charged against the principal of said insurance. I understood, and yet believe, that said arrangement should remain in force so long as I labor under the disability incurred in our country's service, but on the second day of November, 1925, I received a notice from the United States Veterans' Bureau to the effect that, beginning with October, 1925, I must pay a premium of \$7.30 per month on or before the first of each month, else my insurance stood cancelled.

In closing this personal narrative suffice it to say my Government insurance was cancelled before I received a notice threatening cancellation, which is all very well, I suppose, as I am unable to pay the premium on the pay allowed me while I am in vocational training. Now, reader, I respectfully ask how are we going to reconcile the giving of \$12,000,000,000 to Europe with the following extract taken from the Word of God as found in First Timothy, fifth chapter and eighth verse: "But if any provide not for his own, and specially for those of his own house, he hath denied the faith, and is worse than an infidel"?

Should Uncle Sam decide to pursue the Christian course in disposing of the twelve billions involved, he will dispose of them at home; any other course will not be a Christian course, strictly speaking.

In closing, may I say that I am not condemning our people or our Government. I believe with all my heart that both want their ex-service men given a square deal in all things; but lest we forget I ask that this reminder of our predicament be given publicity. I have humbled myself to the extent of making my own case public in the prayerful hope that others of my buddies may be helped to retain their place in the sun thereby.

ROBERT LEE HALL.

P. O. Box No. 15.

Mr. Hall, we think, takes an erroneous view of the situation. Disturbed by his own distressing situation, he necessarily thinks directly from that point of view rather than from the broad point of view of what is best for the whole country and for the whole world.

The viewpoint of the MANUFACTURERS RECORD, which needs to be iterated and reiterated, is that if we put against the credit we loaned to the Allies the terrific losses in men and money of the Allies while holding the line in France, thus saving us from becoming the only militant power against Germany, it would be found that we owe the Allies on moral, as well as on financial, grounds more than the Allies owe us.

Primarily our position is not taken for the purpose of relieving the Allies of any moral or financial obligation, however desirable that may be, but for the express purpose of relieving ourselves from the imputation that all history will place upon us—and which we will be forced to recognize as correct—that in collecting the money or credit advanced to the Allies we have failed to give them credit for the hundreds of thousands of soldiers that gave their lives in our defense. For if they had not held the line during the fifteen months of our failure to be on the battlefield we would in all human probability still be under the domination of Germany to an extent that our indemnity to Germany would have impoverished this country for generations to come.

## Opposed to Cancelling War Debts.

Goldsboro, N. C., November 4.

Editor Manufacturers Record:

For about 20 years I have been a most diligent and sympathetic reader of the MANUFACTURERS RECORD, and during all that time I have never found occasion to disagree with you, unless on some minor matter. For unquestionably, according to my way of thinking, you speak with a sanity and far-seeing vision equaled by few of our editorial writers whom I know (though I fear many of them are too cowardly to write what they think).

But I must dissent from your opinion on the cancellation of the foreign war debts. You have persistently opposed (and I think justly) the constant loans made by our international bankers to these foreign countries because of the various evil consequences contingent upon such loans, two of which might be mentioned—forced membership in the League of Nations and the introduction of free trade. We will notice only two of your reasons:

In your issue of October 9 you quoted an item from the Baltimore Sun to the effect that our international bankers had been advised by the Administration not to loan any more money to these foreign countries until war-debt settlements had been arranged, and your reply to that was that it was unjust to those nations to hold this "big stick" over them in any such way.

Now, you know if these combined war debts were wiped out or cancelled (it's all the same) that these same international bankers would rush their additional loans until they reached approximately the same amount as the cancelled debt. To illustrate: If you owed a debt of a million dollars and found an additional loan was necessary, yet because of the original obligation you could not secure what you needed, can you not see how easily the trouble could be overcome?—simply liquidate the first debt. Yet you urge cancellation because of this "big stick" which is constantly held over them until a settlement is made. You would defeat the very object for which you have contended.

You say, as another reason for urging cancellation, that most of this money was spent over here for supplies. True that is. But let us see how that would work out according to strict and fair business rules. Suppose you were in the money-lending business and an individual procured a loan of \$1000. Then suppose you were conducting a large supply house and your borrowing friend found it convenient to turn round and spend the bulk of the \$1000 with you for such necessities as he needed and you had them for disposal—would you be under obligations to cancel any part of that thousand dollars? Not in the least. Legitimate business is not done that way. It might be all right from a philanthropic point of view, but not as a business proposition.

Besides, these foreign countries did not make their purchases here because they loved us or preferred to trade with us. Not at all. It was because we had the stuff they needed and they could not get it anywhere else. It was strict business with them—no sentiment.

Your views on public questions are always so well grounded, so sound, so well buttressed by common-sense argument, and so forcefully presented, that it is difficult for anyone to disagree with you in this matter, especially when everyone knows you are honest in the stand you take.

In passing, I want to say that it is a shame that we have no Southern daily newspapers which are willing, as you do, to take their stand against so many evils which afflict our country today—for instance, radicalism of various tints and types, Russian Reds, bootlegging and crime in every form, etc. They shed oceans of tears over trivial affairs, yet ignore or approve these hundred of evils which are eating at the very vitals of our whole social, industrial and Governmental structure. Surely they know better. Have they no backbone? Are they too cowardly? Or is it more profitable for them to pursue this course of subservency to the powers of darkness which are seeking to destroy our republic?

May you live long and continue to wield a powerful pen against the evil forces which are trying to destroy us today, both body and soul! A nobler work no one has ever done than you are doing and have done. The watch tower is well manned while you are at the lookout. But just as Moses needed the support of Aaron, so you must have the support of all the moral and spiritual forces to sustain you in the great war you are so valiantly waging against all forms of corruption.

E. L. TATE,

P. O. Box 327.

In reply to a personal request in connection with the fore-

going letter from Mr. Tate, asking that we publish his article, we, of course, comply, as we are publishing other letters from time to time taking a directly opposite view from that of the MANUFACTURERS RECORD on this debt question.

We do not, however, agree with Mr. Tate in any way whatever on the question of these alleged debts of the Allies. They are on an entirely different basis than the loans that are being made by American bankers to European Governments, municipalities and industrial interests. These loans are strictly business propositions. We are not in favor of them to any such extent as they have been made. We think many investors have done unwisely in putting so much money into these European loans; but that is an individual proposition and has nothing whatever to do with the question of national loans or national indebtedness in connection with the war debts. From our point of view, and we believe we are justified in it, the United States is morally, if not legally, indebted to the Allies, and this moral responsibility should be counted just as much as money, as the Allies are indebted to us for the actual credits which we loaned them.

Against our credits, they held on the battlefields, for our protection as well as their own, millions of soldiers, of whom hundreds of thousands died, and they died just as much in defense of America as of their own countries. If these battle lines had not been held through our financial aid, the losses to us in deaths of our own soldiers in Europe, and perhaps in this country, would have been infinitely greater in value than all the money we expended upon the war, greater in proportion as human life is more valuable than the dollar.

### Tulsa Water Supply Carried 60 Miles.

Indicative of the distance which growing towns must sometimes go for an ample supply of water is an article by the De Laval Steam Turbine Company of Trenton, N. J., in which, in referring to the distance that water had to be carried for the establishment of the splendid system that recently was completed at Tulsa, Okla., they write:

"The water supply system of Tulsa, which has the capacity to bring more than 28,000,000 gallons daily from the Ozark Hills, 60 miles to the northeast, is described in a pamphlet distributed by the De Laval Steam Turbine Co. This concern built the steam turbine-driven centrifugal pumping units by means of which the water received from the tunnel is raised in pressure for distribution through the city mains. The leaflet gives much interesting information regarding the long concrete supply tunnel and its hydraulic characteristics."

### \$1,000,000 Building for Kansas City Shriners.

Kansas City, Mo.—Construction has started on the \$1,000,000 home of Ararat Temple, Ancient Arabic Order, Nobles of the Mystic Shrine. The new building will be four and a half stories high, with a foundation built to support additional stories. There will be an auditorium to seat 3000 persons, a stage large enough for theatrical productions, dining rooms, kitchens, billiard rooms, bowling alleys, drill room, lounges, etc. In the basement will be a dining room to seat 1500. Owen, Payson & Carswell are the architects and the Fogel Construction Co. will erect the building.

### \$500,000 Garage for West Palm Beach.

West Palm Beach, Fla.—Joseph Phillips and H. P. Bryan have announced plans for the erection of a \$500,000 8-story fireproof garage, 150 by 150 feet, to provide storage for 750 cars; the ramp system will be used. Passenger elevators will be installed and a restaurant with a seating capacity of 1000 will be located on the roof. Bruce Kitchell has been selected architect.

### Keeping History Straight.

[From the Progress-Index, Petersburg, Va.]

A reader of the MANUFACTURERS RECORD with more assurance than politeness writes a communication to that journal in which it characterizes as "pure bunk" arguments which the MANUFACTURERS RECORD recently made in support of the proposition to cancel French indebtedness to the United States. In reply, the MANUFACTURERS RECORD suggests that Mr. Jones may not know as much as he thinks in regard to what constitutes "pure bunk," adding that:

"Perhaps he does not know that German interests have been back of the Riff campaign, and that Germany supplied Riffs with their arms for the purpose of getting control of the vast mineral interests of Morocco, just as the fight at Verdun was the purpose of getting control of the iron-ore interests of that region. Perhaps Mr. Jones does not remember that Mississippi many years ago repudiated its own bonds, and that that repudiation was successfully used in London during the Civil War to prevent London bankers from making a heavy gold loan to the Confederacy."

It seems to have been perfectly well established that Germany, represented by great financial interests in that country, is responsible for the Riff rebellion against France, the object being to assure German control of ore beds in Morocco. France has never intimated that she would or might repudiate her debts.

Regarding repudiation of her state debt by Mississippi, the MANUFACTURERS RECORD well might have added that 14 states of the Union in the North and the South have repudiated their bonds. It is also true that some of the people of states which repudiated bonded indebtedness have been rather free in recent years in criticising Virginia for not issuing bonds for highway improvement, although Virginia steadfastly refused to repudiate her ante-war indebtedness and still is struggling along paying interest and principal on \$20,000,000 of such bonds and building highways on a cash basis. All this for the purpose of keeping our history straight.

### Big Steam Electric Generating Plant for Southern Power Company.

Salisbury, N. C.—On the Yadkin River near here the Southern Power Co., Charlotte, will erect a huge steam-electric power plant, according to an official announcement. There will be a generating capacity of 100,000 horsepower, constructed primarily to prevent a power shortage during periods of drouth.

The site has been acquired. Construction work will be done by the company's forces and the designing will be handled by the engineering staff. Initially, two steam generating units of 37,500 kilowatts each are to be installed.

### \$750,000 Hospital for Florida Communities.

Daytona Beach, Fla.—F. J. Niver, chairman of the Hospital Commission, has announced that Wison, Berryman & Kennedy of Columbia, S. C., have been selected to prepare plans for the \$750,000 hospital authorized by special act of the 1925 legislature. Bonds will be sold to cover the cost of the project. The institution will serve the Halifax district, comprising Daytona, Daytona Beach, Ormond, Seabreeze and Port Orange.

### \$250,000 Hotel for Church Group.

Fort Smith, Ark.—The Mount Sequoyah Improvement Co., a joint organization of the Western Methodist Assembly, may erect a fireproof hotel to cost \$250,000 at Mount Sequoyah, near Fayetteville. Col. H. L. Rammel has been elected president of the new company, and T. L. Hart of this city, secretary and treasurer.

### Memphis Offers \$785,000 Improvement Bonds.

Memphis, Tenn.—The Board of Commissioners will receive bids December 8 for \$785,000 bonds, including \$500,000 for general improvements, \$125,000 for hospital additions and extensions and \$160,000 for street improvements.



# One of the Reasons for the South's Success in Cotton Manufacturing.

By JOHN E. DREWBY, Athens, Ga.

This is a story of a Georgia cotton-mill president as exemplifying one of the reasons for the success and expansion of the textile industry in the South. The man is John H. Cheatham of Griffin, who is president of the Georgia-Kincaid Mills at Griffin—five in number; president of the Hartwell (Ga.) cotton mill, president of the Toccoa (Ga.) mill and the owner of the Hartwell (Ga.) Railway.

The annual value of finished products of the Georgia-Kincaid Mills is in the neighborhood of \$7,000,000—a figure which will give the reader a better idea of the operations of



JOHN H. CHEATHAM.

the company of which Mr. Cheatham is the head and of the importance of the position which he holds. The Georgia-Kincaid organization each season buys from the farmers of middle Georgia \$3,000,000 or more of raw cotton. The principal products of the mills are terry and huck towels, crashes, damasks, corduroys, tickings, diaper cloths and flannels.

Seven years ago Mr. Cheatham assumed control of the Georgia Mills in Griffin, which in 1923 were merged with the Kincaid Manufacturing Company, the new organization being known as the Georgia-Kincaid mills. When Mr. Cheatham took charge of the Georgia Mills the organization could not be said to be making money, but under his management a dividend has been paid to the stockholders every year. During the period of Mr. Cheatham's residence in Griffin the Georgia-Kincaid Mills have been regularly expanded. Recently the Lowell bleachery was erected at a cost of \$750,000. This bleachery is an integral part of the Georgia-Kincaid organization. A new office building is now being constructed and constant improvements are being made both in the physical property of the company and in the personnel.

The payroll of the Georgia-Kincaid Mills in Griffin amounts to \$20,000 a week, and merchants say that the revenue let loose in Spalding county by the mills and by the employees

of the mills is largely responsible for the continued prosperity in middle Georgia. One of the leading clothing merchants of Griffin told the writer that were it not for the mills the town would have experienced hard times and several stores might have closed during the long, dry summer, one of the hardest the section has ever experienced.

On September 1 of this year the 1700 employees of the Georgia-Kincaid Mills were paid a total of \$27,000 in bonus checks, some of the checks being for as much as \$300.

Mr. Cheatham believes in dividing his profits with the people who work for him. Since reaching his executive position he has always paid a large annual bonus to his nearly two thousand employees, and this is but one of several acts that mark him as an extremely humane person who feels for the welfare and happiness of those who labor under him.

From the time Mr. Cheatham became president of the Georgia-Kincaid Mills the relief organizations of Griffin have not had a single case among his employees. He provides for their pleasure, health, social and religious life with almost the same attention that he does for that of his family. He has community stores, churches and playgrounds. Recently he has fostered the organization of the Georgia-Kincaid Mills Band, which gives entertainments not only to the mill people, but to the people of the city of Griffin. At Christmas-time the mills, under the direction of Mr. Cheatham, act as Santa Claus to all the children of employees. Last December 3000 baskets of candy and fruit were distributed on Christmas morning, and in the pay envelope of every employee was a new one-dollar bill. Such acts as these have endeared Mr. Cheatham to his employees, and it is safe to say that no other executive in the South has more united support and affection from those working for him than has the president of the Georgia-Kincaid, Hartwell and Toccoa mills.

In his early forties, Mr. Cheatham is one of the youngest executives and capitalists in Georgia and the South, and because of his position, his properties and the interesting story attached to his rise from the position of bookkeeper and bank teller in a South Carolina bank to that of president of seven large manufacturing companies he is one of the more important figures in Georgia's progress. Several years ago Mr. Cheatham became superintendent of the Sunday-school of the First Baptist Church at Griffin, and today the school attendance is twice what it was when he took charge. His sincere, unaffected manner, plus the executive ability which he has developed in his business career, make him an ideal leader in religious work, where he has met with as much success as he has in the cotton-manufacturing business.

The story of how he became the owner of a railroad is an interesting one. Not so long ago officials of the Southern Railway, in checking over their books, found that the Hartwell Railway, one of their properties, was losing \$40,000 a year. They decided that it would be best to scrap the railroad. They announced their intention of so doing, and when the announcement was made there was great consternation in the prosperous little town of Hartwell, because that was the only railroad running in and out of the town, and it would be a decided setback to lose it.

Mr. Cheatham, smoking his pipe in his Griffin office, read the story containing the announcement in the paper. He got a friend in Hartwell over the long-distance telephone. Mr.



Cheatham then phoned the Griffin railway ticket office for a reservation to Washington, and in another 24 hours he was in the office of the president of the Southern Railway, and in just a little longer time he bought the railway. Two Hartwell citizens took stock in the road under Mr. Cheatham's ownership, and today the town is enjoying its continued prosperity and has no further fear of losing its railroad, for it is now a money-making proposition. One story in this connection sheds light on Mr. Cheatham's methods when he says:

"The records show that almost regularly the engine and the rolling stock in the Hartwell line were being sent to Atlanta for repairs. The repairs would cost from \$2000 to \$5000. When the road became mine I called in the engineer and said: 'Fred, if I were to raise your salary \$25 a month, don't you think you could look after the repairs on the engine and keep the train running?' Fred replied in the affirmative. I raised his salary and we haven't been bothered with repair bills since. This and other tightening up has turned a losing road into a profitable possession."

When he is not buying a new mill or a new railroad or directing the activities of those already in his possession, Mr. Cheatham enjoys hunting. He does not play golf. He frequently spends a week in New York without going to a show, but rarely lets a Sunday pass that he does not attend every service at the church of his choice. He is a family man, having a wife and four young children. Only recently he completed and moved into one of the finest homes in Griffin.

Mr. Cheatham, a graduate of Furman University, who began work as a bookkeeper, offers sound advice to the young college man when he says that "College-trained men have a much better chance of getting along in the world than those without such training—that is, if they are willing to start at the bottom and really work. The trouble with most men who have just graduated from college is that they expect to start in as general manager or vice-president, and when such positions are not offered them they get sullen and won't take a job that would ultimately lead them to higher and more responsible positions. On several occasions recently college men have declined good positions in one of my organizations because they were not farsighted enough to see that such work would push them along to more responsible and more lucrative work."

### New York Corporation Gets Virginia Power Stock.

Warrenton, Va.—The National Public Service Corporation of New York has acquired all the common stock of the Virginia Northern Power Co., operating at Bealeton, Culpeper, Marshall, Orange, Rapidan, Remington, The Plains and Warrenton. The National Corporation controls the Alexandria Light & Power Co., operating in Alexandria, Fairfax, Falls Church and Herndon, as well as the Virginia Western Power Co., operating in Clifton Forge, Staunton, Lexington and Charlottesville. The new company plans extensive improvements.

### Rail, Light and Power Program Involves \$1,500,000.

Nashville, Tenn.—Directors of the Nashville Railway & Light Co. have authorized the expenditure of over \$1,500,000 for the 1926 improvement program. New street cars will cost \$135,000, a sub-station to provide increased facilities for light and power will cost \$100,000, a new turbo-generator with a capacity of 26,000 horsepower will be installed at a cost of \$500,000 and the street railway tracks will be improved at a cost of \$250,000.

### Trend of Textile Consumption.

Consumption of raw wool in the years 1921-1924 in the principal consuming countries was not far below the pre-war average consumption, reports the Department of Agriculture. Some interesting shifts in the amount of wool available for consumption in the different countries are to be noted. The average amount available for consumption in the United States in 1921-24 was about 70,000,000 pounds greater than before the war. On the other hand, the United Kingdom, which is a close competitor of the United States in the use of wool, had about 35,000,000 pounds less for consumption in the same period. There is an apparent reduction of nearly 90,000,000 pounds in the amount available in Germany. This is in part, of course, to be offset by the wool used in territory separated from Germany after the war. The apparent consumption of France, however, with the addition of Alsace-Lorraine, is still considerably below what it was before the war, and adding the German-Polish territory to former Russian territory, the post-war consumption remains below pre-war consumption. It is apparent, therefore, that, taking France, Germany and Russia, together with all their pre-war territory, there has been a considerable reduction in the amount available for consumption in post-war years compared with that available for consumption in pre-war years. Increases are to be noted especially in Italy and Japan.

Reducing the amount of wool available for consumption in the United States to a per capita basis, the trend appears to be but slightly downward. Except for this slightly downward trend, per capita consumption appears to have been maintained remarkably constant. The downward trend in wool consumption appears to be more than offset by an upward trend in cotton consumption. There has been a steady increase in the consumption of silk, though the per capita use is still small. In the last decade rayon has also become a factor in the textile market, although consumption has not yet reached a half pound per person. It is apparent, therefore, that wool is encountering increasing competition from other textiles.

The production and use of rayon has recently become an important factor in the textile market. Available statistics indicate that the world production of rayon has increased from about 29,000,000 pounds in 1913 to 141,000,000 pounds in 1924. Production in the United States has increased from about 1,600,000 pounds to nearly 39,000,000 pounds. This fiber, being produced from cheap raw materials, as the cost of processing or manufacturing has declined, prices have been reduced so much that the consumption has increased very rapidly. Rayon has become an important factor, especially in the manufacture of hosiery, and it is becoming important in the manufacture of other knit goods, underwear, and for mixing with silk and cotton.

### Sell \$750,000 School Bonds.

West Palm Beach, Fla.—The County Board of Public Instruction recently marketed three school bond issues totaling \$750,000. The West Palm Beach issue of \$500,000 sold for \$505,000, the Lake Worth issue of \$175,000 brought \$171,675 and the Jupiter issue of \$100,000 was sold for \$98,100. Prudden & Co., Seasingood & Mayer and the Provident Savings & Trust Co., collectively, bought all three issues.

### \$500,000 House-Building Program.

Miami, Fla.—Louis G. Siglock, Jr., and Carlisle H. Johnson, architects, have prepared plans for a number of houses for Chateau Park, Fort Lauderdale. The total building program as outlined involves the expenditure of \$500,000. John M. Brennan & Son, Cleveland, and Teskey Bros. of Toronto, Canada, have been awarded contracts.

# \$5,000,000 Paper Plant, \$2,000,000 Power Plant and \$800,000 Hotel in Triple Dedication.

MARKS NEW ERA IN INDUSTRIAL DEVELOPMENT OF NORTHERN LOUISIANA.

By DONALD F. WALKER, Secretary-Manager of the Chamber of Commerce of Monroe and West Monroe, La.

Approximately 300 citizens of Louisiana, Mississippi, Arkansas and Missouri gathered in Monroe November 17 and 18 to participate in the dedication of the new Virginia Hotel of that city, the new plant of the Louisiana Power Company at Sterlington and the new paper mill of the Louisiana Pulp & Paper Co. at Bastrop. In this group were Governor H. I. Whitfield of Mississippi, Senator J. T. Robinson of Arkansas,

ment Company, builders and owners of the Virginia; Harvey C. Couch of Pine Bluff, president of the Arkansas, Louisiana and Mississippi power companies, the second of which built the Sterlington plant, and R. J. Cullen, president of the Louisiana Pulp & Paper Co.

The Sterlington power station is designed for extension to 200,000 horsepower, the first unit of 40,000 horsepower having been dedicated on this occasion. It is said that its entire present capacity has been sold. This station is connected by 110,000-volt transmission lines with the systems of the Arkansas Light & Power Co. and the Mississippi Power & Light Co., making available electric power generated at Sterlington, at the Rammel hydro-electric plant on the Ouachita River and at other large stations generating electricity from water-power, natural gas, oil and pulverized coal. Eventually these systems will be connected with hydro and other systems east and north of Mississippi.

Designed and built under the supervision of Ford, Bacon & Davis, the Sterlington plant, which is located within 20 miles of Monroe and about an equal distance from Bastrop, is 150 feet square and 100 feet high. Ultimately the building will be 150 feet wide and 500 feet long. Work was started December 15, 1924, and from 100 to 300 men were employed as construction work progressed, operations being carried on night and day. In the construction, 1,062,000 brick, 19,000 barrels of cement and 12,200 cubic yards of sand and gravel were used. Sterlington was selected as the site for this immense plant because it is near the center of the gas field, just above one of the Government dams and locks, insuring abundance of water and also water transportation for other fuel in the contingency of a shortage of gas at any time. Natural gas burnt under the boilers is brought into the plant through 6-inch mains from the Frost holdings near Spencer, five miles from Sterlington, and from the Morris, trustee, holdings near Bastrop, 10 miles away. Seven Duquesne type burners supply the heat for each of the four boilers. In supplying gas sufficient to meet the demands of the plant these burners will deliver to the boilers gas equivalent to 10 cars of coal daily.

The Louisiana Power Company has acquired several of the municipal plants in northern Louisiana, including the one in West Monroe, and is negotiating for others. The com-



LOUISIANA POWER PLANT, STERLINGTON.

the Attorney General of Arkansas, representing the Governor of that state; Senator Henry E. Hardtner of Urania, representing the Governor of Louisiana, who was ill; President L. W. Baldwin of the Missouri-Pacific Railway, and many other political, industrial, commercial and banking leaders of the South.

The three industrial leaders who were at times hosts and at times honored guests during the festivities were E. A. Frost of Shreveport, president of the Frost-Whited Invest-



PLANT OF LOUISIANA PULP & PAPER CO. AT BASTROP.



pany has a well-organized industrial department fully functioning, co-operating with chambers of commerce throughout the area in selling the great industrial possibilities of the district to its inhabitants and to Northern and Eastern interests.

The present plant represents a capital investment of approximately \$2,000,000, and when completed will represent an expenditure of \$7,000,000. The Louisiana Pulp & Paper Co. represents the largest capital investment of the three institutions started on this occasion, a total of \$5,000,000. This plant produces 175 tons of pulp and 120 tons of kraft paper daily. It daily uses 350 cords of pine, 60,000 pounds of sulphate of soda, 50,000 pounds of lime, 6500 pounds of alum, 6000 pounds of rosin and 8,600,000 gallons of water. In the



THE VIRGINIA HOTEL, MONROE.

mill 375 men are employed and 250 men work in the woods. The company owns 200,000 acres of pine lands in fee, producing at the rate of one-half cord wood per acre per year.

So rapid has been the growth of Monroe and West Monroe within recent years that the hotel facilities were completely outgrown and the necessity of remedying this situation became so acute that a year or so ago the Monroe Chamber of Commerce took steps to provide a free site for a modern hotel. Arrangements were made with the Frost-Whited Investment Company of Shreveport to undertake the project, and a large lot situated in the heart of the city and costing \$75,000 was placed at their disposal. On this a hotel has been built at a cost of \$615,000 and equipped with furnishings costing \$125,000, or a total cost of \$815,000. The hotel has 157 rooms, all but about a dozen being equipped with bath and all the latest conveniences. It also has a coffee shop, dining-room service, ballroom and convention hall, private dining rooms, roof garden, barber shop, drug store, beauty parlor and cigar stand, and offering quarters to the local Chamber of Commerce and Triple-A Motor Club.

The hotel has been leased by the Daley-Moffatt Hotel Company, of which J. E. Daley is president, H. H. Moffatt vice-president and L. A. Grevenburg secretary-treasurer. E. S. Morey is the resident manager. This is the sixth hotel to be taken over by this management, the others being the Bender, Cotton and Plaza at Houston, the Crosby at Beaumont and the O'Neill at Palestine, Texas.

This is not the complete story of Monroe and West Monroe; it is, however, a story of one of the greatest tokens of the progress that is being made in these cities, in Ouachita parish and in northeastern Louisiana. There are no "boom" conditions, but plans are being made daily for steady, continuous growth along every possible line. Steady progress is being made toward improving transportation facilities, and streets, parks, schools, churches and public roads all come in for their share of attention.

### Closer Co-Operation in Structural Steel Industry.

Definite steps to further the progress of the structural steel industry by means of closer internal co-operation, by the application of the most approved business practices and by the education of the public in regard to the advantages of structural steel marked the annual convention of the American Institute of Steel Construction, held at White Sulphur Springs, W. Va., November 11 to 14, inclusive.

C. Edwin Michael, president of the Virginia Bridge & Iron Co., Roanoke, Va., welcomed the guests. The keynote of Mr. Michael's address, and in fact of the whole convention, was struck when, in summing up, Mr. Michael said, "Sectional and group co-operation of members is necessary to eliminate duplication of expensive practices. Accurate cost finding, modern selling methods, economical distribution, and a campaign of intelligent and forceful publicity promoting the use of structural steel are essential for the success of all engaged in the industry." J. L. Kimbrough, president of the American Institute of Steel Construction, replied to the address of welcome.

A considerable portion of the convention's time was devoted to discussions of various technical phases of the industry, R. A. Storm, manager of the structural department of the Morgan Engineering Company, Alliance, Ohio, delivered an address on "Electric Arc Welding and Its Application to Structural Steel." Speaking on the use of steel in residences, farm buildings, garages and small apartments, Henry R. Brigham, chairman of the Housing Committee of the National Association of Real Estate Boards, stated that such construction offered an almost untouched field for the expansion of the structural-steel industry.

The need of further technical research in the structural-steel industry was emphasized in a paper by Dr. George F. Swain, professor of civil engineering, Harvard University. A paper by H. A. Frommelt, consulting engineer, of Milwaukee, Wis., urged the adoption of the apprenticeship system in the building trades. Other addresses were: "The Fire-proofing of Structural Steel," by B. C. Collier, president, Cement-Gun Company, Inc., Allentown, Pa.; "An investigation to Determine the Cause of Rivet Failures in Driving," by A. L. Spencer, Jr., Pittsburgh Screw & Bolt Co., Pittsburgh, Pa.; "My Experience with Concrete and Steel in Building Construction," by Albert C. Martin, architect and engineer, Los Angeles, Cal.; "Structural Steel in Earthquake Areas," by John L. Clymer, manager, Northern California Division, California Institute of Steel Construction; "Tests of I Beams Encased in Concrete," by Dr. H. M. McKay, dean, Faculty of Applied Science, McGill University, Montreal, Canada; "The Structural Steel Industry and Its Future," by H. A. Fitch, president, Kansas City Structural Steel Company, Kansas City, Kan.

J. L. Kimbrough, Indiana Bridge Company, Muncie, Ind., was re-elected president of the Institute for the ensuing year. W. M. Wood, Mississippi Valley Structural Steel Co., Decatur, Ill.; Charles F. Abbott of New York and Lee H. Miller of Cleveland, Ohio, were re-elected vice-president, executive director and chief engineer, respectively. C. E. Michael, Virginia Bridge & Iron Co., Roanoke, Va., was elected to the new office of second vice-president.

The following were elected as new directors: W. S. Mosher; Mosher Steel & Machinery Co., Dallas, Texas; R. Llewellyn, Llewellyn Iron Works, Los Angeles, Cal., and C. E. Michael, Virginia Bridge & Iron Co., Roanoke, Va. N. W. Warren, Dominion Bridge Co., Montreal, Canada, was elected to fill the unexpired term of E. S. Mattice, Canadian Vickers, Ltd., Montreal, Canada.

The board of directors decided to hold the next annual convention at White Sulphur Springs during the last week in October, 1926.

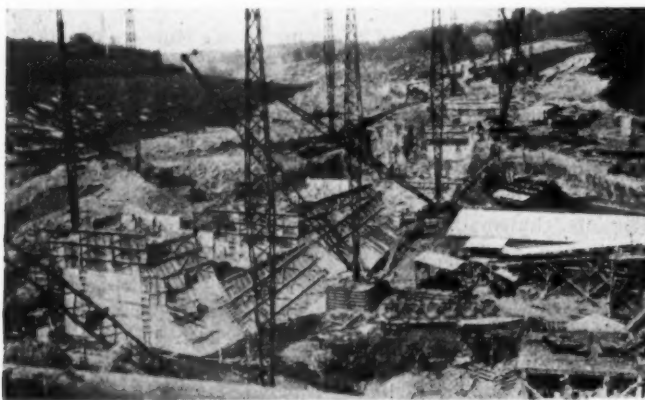
# \$2,400,000 Improvements to Durham Water-Works.

TO INCLUDE 4,600,000,000-GALLON STORAGE RESERVOIR, GRAVITY MASONRY TYPE DAM, POWER AND PUMPING STATION, FILTRATION PLANT AND OTHER FACILITIES.

By R. W. RIGSBY, City Manager, Durham, N. C.

In 1921 the city of Durham, together with several other towns in the South, experienced an unusual water shortage, to the extent that severe curtailment of service had to be resorted to in order to preserve safety as regards both fire and sanitation. Realizing the necessity for action, city officials immediately set about to prevent the recurrence of such water shortages and employed an engineering firm, which after a year's study made suggestions for improvements, the major portion of which are now being carried out and will cost when completed approximately \$2,400,000.

The present water-works development and improvement program embraces the construction of a gravity masonry dam



620-FOOT MASONRY DAM UNDER CONSTRUCTION AT DURHAM. and a 4,600,000,000-gallon impounding reservoir, a hydro-electric power and pumping plant, and extension of the filtration plant and distribution system.

The dam, to be completed some time in January or February of next year, provides ample storage capacity to serve Durham for 40 to 50 years in the future; it makes possible the development of considerable power during about seven months of the year and is of sufficient height materially to reduce the head against which the water must be pumped to reach the city. It provides a supply of water from a river free from pollution, whereas at the present time the two sources of supply drawn upon, one of which is subject to an increasing degree of pollution, are insufficient to meet the demands made upon them, and factories and domestic consumers have had to curtail their usage.

In designing the present project the engineers have taken advantage of the available power and reduction in static head. The power will be used for pumping purposes and any excess will be disposed of under a contract with a local public service company, while provision is made for the company to make up deficiencies in power at a favorable rate. The city purposes to maintain intact its present steam pumping station on Flat River, to be available at all times in case of an emergency.

The 4,600,000,000-gallon storage reservoir will cover about 550 acres of land, will be about five miles in length and varies in width from about 500 feet to 4000 feet.

The dam will be of the gravity masonry type, with one section of earth fill. The masonry section will be about 620 feet in length and the elevation of the bulkhead will be 93 feet above the water in the tail race, while the elevation of the spillway will be 81 feet above the same point. This structure necessitated the excavation of 10,000 cubic yards

of earth and 54,000 cubic yards of rock. The earth-fill section will constitute 44,000 cubic yards of earth embankment, 4500 square yards of which will be covered to a depth of 18 inches with riprap. This section will be 390 feet in length, while the greatest depth of fill will be about 40 feet. It will contain a core wall of concrete, which will extend down to solid foundation. The fill will be 20 feet in width at the top and will have a slope of 3-to-1 on the upstream side and a 2½-to-1 slope on the downstream side.

Three grades of masonry will be employed in the construction of the dam and power house. Class A masonry of a 1-2-4 concrete will be used in the intake, power house and retaining wall. This construction will constitute about 780 cubic yards. Class B masonry of a 1-2½-5 concrete and one-man stones will be used in the station foundation, tail-race wall, wing wall and part of core wall. About 2000 cubic yards of this construction will be used. The masonry section of the dam and part of the core wall will be of class C masonry of a 1-3-6 concrete, in which plumbs (large stones) will be embedded. This type of construction will constitute about 78,500 cubic yards. Ninety-six tons of steel reinforcement are to be used in the construction of the power house.

The power and pumping machinery will be housed in a brick and concrete building built integral with the dam. This structure will be 75 feet by 103 feet, with a total height of 74 feet above the bottom of the tail race. The machinery to be installed in this structure at the present time consists of the following:

1—Three 725 horsepower vertical hydraulic turbines, designed to operate under heads of from 60 to 80 feet and at a speed of 514 revolutions per minute.

2—Three 500-kilowatt vertical type revolving-field generators, to be connected direct to the foregoing hydraulic turbines and operated at 514 revolutions per minute.

3—Two single horizontal-shaft hydraulic turbines at 260 horsepower rated capacity, operating efficiently under heads of from 60 to 80 feet at 900 revolutions per minute.

4—Two horizontal-shaft centrifugal pumps, turbine driven, rated at 5000 gallons per minute, against a 150-foot head at 900 revolutions per minute, to be directly connected to the turbines.

5—Two motor-driven pumps, rated at 5000 gallons per minute under a head of 150 feet, to operate efficiently under heads of from 120 feet to 180 feet. They will be connected to synchronous motors.

6—Two synchronous, revolving field, 300-horsepower, 2300-volt motors, connected to the pumps.

7—One 15-ton overhead, hand-operated traveling crane, having a 56-foot 6-inch span and operating on a 100-foot track.

8—One 24-inch Venturi meter.

9—One switchboard and accessories.

Other incidental equipment at the dam will be gate valves of various sizes, of coated cast iron with bronze composition working parts, and trash racks with rakes to be operated by a motor.

The transmission of power to and from Durham will be effected over a 22,000-volt power line, 11 miles in length. This line necessitates the use of 298 galvanized steel poles, 235 of which are 35-foot poles and the remaining number varying from 40 to 50 feet in length. One thousand pin-type 25,000-volt insulators and 15 strain type 25,000-volt insulators were used for the power line and 650 pin-type insulators were used for the telephone line. Wire used amounted to 22,200 pounds of No. 4 soft-drawn copper wire, 3800 pounds of No. 10 hard-drawn telephone wire and 1000 pounds of guy wire.

A 2000 KVA sub-station will be erected at the dam and a 1500 KVA sub-station at the city pumping station. The



primary and secondary voltages of these stations are 22,000 volts and 2300 volts, respectively. Both sub-stations are the weatherproof, outdoor type, with galvanized steel supporting towers.

A 30-inch cast-iron line will be constructed from the dam to the present pumping station on Flat River, a distance of one mile. At this point it will connect with the present line serving Durham. Twelve hundred tons of cast iron will be used in this construction.

The capacity of the addition to the present filtration plant will be 5,333,000 gallons per day. A reinforced concrete structure, 117 by 152 feet, will be erected at the present city filtration plant. This structure will contain a set of clear-water basins, built as a separate unit on the ground floor and of a height of 15 feet. Above these will be constructed a unit of coagulating basins, 15 feet in height. The front part of the structure, 56 by 117 feet, will contain the filters and pumping machinery. Provision will be made for five pumping units of 5000 gallons per minute capacity, against a 230-foot head. Two of these units will be immediately installed. They will be operated by 400-horsepower, 2200-volt alternating-current motors, operated at 1200 revolutions per minute.

In addition to the clear-water basins there will be erected a separate basin, 122 by 62 by 19 feet, of reinforced concrete. The capacity of this basin will be 950,000 gallons. A mixing chamber, 44 by 16 by 10 feet, will be provided, and a raw-water booster pump house, 19 by 33 by 12 feet, will be erected to contain two pumping units. One of these units, a 7000-gallon-per-minute pump, operated by an electrical motor, will be installed at the present time.

Other equipment to be installed at the station includes five Venturi meters for 24-inch and 36-inch pipe lines, a 300-gallon-per-minute wash water pump and a 200-gallon-per-minute solution pump, switchboards, piping, etc. A 24-inch cast iron pipe line will be laid from the station to the city, a distance of two and six-tenths miles.

Contracts let and now in process of execution for the entire project aggregate \$1,589,150.49.

Some of the contractors are: Lynchburg Foundry Co., Lynchburg, Va., pipe; Chapman Valve Manufacturing Co., Springfield, Mass., valves; Elliott Company, Pittsburgh, Pa., strainers; Builders Iron Foundry, Providence, R. I., Venturi meters; Western Electric Co., Charlotte, N. C., power line materials; Knoxville Iron Works, Knoxville, Tenn., reinforcing steel; Hardaway Contracting Co., Columbus, Ga., general contract; S. Morgan Smith, York, Pa., vertical water-wheels; Worthington Pump Co., New York city, horizontal water-wheels; Westinghouse Electric Co., East Pittsburgh, Pa., vertical generator and switchboard; General Electric Co., Schenectady, N. Y., sub-station and motors; Chapman Valve Co., Springfield, Mass., sluice gates; Newport News Shipbuilding & Dry Dock Co., Newport News, Va., trash racks and rakes; Eddy Valve Co., Waterford, N. Y., check valves; Glamorgan Pipe & Foundry Co., Lynchburg, pipe and fittings; Grinnell Company, Charlotte, N. C., valves; Tucker & Laxton, Charlotte, N. C., general; Morris Machine Works, Baldwinsville, N. Y., pumps; Carolina Sales Electric Co., Charlotte, N. C., wiring materials.

W. M. Platt of Durham is consulting engineer, and the Pittsburgh Testing Laboratory, Pittsburgh, Pa., supplies testing materials.

### **\$2,000,000 Bonds Offered by Galveston.**

Galveston, Texas.—The sale of \$2,000,000 additional grade-raising bonds and \$75,000 bonds for incinerators has been authorized by the Board of City Commissioners, and bids will be received December 10. Plans are also being discussed for additional drainage improvements.

### **Chicago Capitalists Who Believe Not Only in Florida But in the Whole South.**

The Lonnquist Company,  
111 W. Washington Street.

Chicago, November 20.

#### *Editor Manufacturers Record:*

A party of Chicago men have purchased the holdings of the Tampa Lakes and Country Club Corporation at Tampa, Fla., and plan an immediate development of a very large portion of this property.

One of our best known architects, Ben Marshall of Chicago, is drawing the plans for a combination hotel and golf club. William Diddel of Indianapolis has been engaged by the syndicate to lay out two 18-hole golf courses in connection with this project. A small Spanish village will be laid out in connection with the hotel, and residential development and shops will be leased in this village to suitable tenants. Many of the very best features which have made the Edge-water Beach Hotel famous in Chicago will be incorporated into this development, and there will also be a riding academy with bridle paths circling the lakes which comprise a part of our holdings at Tampa. There will be a polo field and a combination aviation and hydroplane landing, anticipating the extension of this modern form of travel within the near future to the city of Tampa.

Some of the men interested in this project are Charles O. Goss, former president of the Western Golf Association and a director of the Chicago Athletic Association; Edward S. Judd, first president of the National Association of Real Estate Boards; Brig. Gen. Nathan William MacChesney, attorney for the National Association of Real Estate Boards; William Bartholomay, Bartholomay-Darling Company, insurance; Murray Wolbach, builder and capitalist, and a number of other prominent Chicago and South Bend (Ind.) capitalists, who have formed a corporation known as the Seminole Lakes Corporation of Florida, of which the writer is president. The necessary engineering is under way, and from our office here in Chicago we have furnished the men to hire the labor and to supervise the opening up and development of the property.

You are probably familiar with our Sunset Hills Development at Tarpon Springs. We believe that this development merits the attention of anyone friendly to Florida and interested in its material advancement on sane lines.

The writer is a firm believer in the entire South, and predicts that the active area of development and progress will extend each year commensurate with the resources so abundantly found throughout the entire district.

A. LONNQIST.

### **\$7,000,000 Power Improvement Program for Tennessee Company Next Year.**

Chattanooga, Tenn.—Directors of the Tennessee Electric Power Co. recently adopted a budget calling for the expenditure during 1926 of \$7,000,000. The company is preparing to build a dam on the upper Ocoee River near Blue Ridge to cost \$1,600,000. Large amounts are to be expended for improving plants in middle and east Tennessee and possibly for adding another unit at Hale's Bar.

### **\$1,500,000 Houston School Bonds Purchased.**

Houston, Texas.—The School Board has sold the second half of the \$3,000,000 school bonds voted in June, 1924. The Guaranty Trust Co. of New York city purchased \$1,332,000 of the bonds, submitting a bid of par, accrued interest and a premium of \$55,684. The remaining \$168,000 bonds were purchased by the School Board for its sinking fund.

### New Markets Opening to Bituminous Coal Fields as Result of Anthracite Strike.

Fairmont, W. Va., November 25—[Special.]—After three years of relative inactivity in the bituminous industry, ascribed successively to inadequate railroad facilities, disorganized labor and curtailed activity in the nation's industries, striking miners in the anthracite fields have involuntarily opened up new markets to the soft-coal producers and the industry is showing a renewed life which is commencing to be felt in many lines of business in the commercial centers of the soft-coal fields.

With railroads and industries operating at fuller capacity than for several years past and an unusually large tonnage of bituminous being used for coke-burning, a considerable increase is noticeable in the demand for run-of-mine coal. But the real cause for optimism in the bituminous fields lies in the enormously increased demand for prepared and smokeless grades, which are used for house heating. Soft-coal production has been on an upward trend for weeks, and according to recent statistics issued by the United States Department of Commerce the tonnage mined during the last two weeks of October and the first week of November exceeded 12,000,000 tons a week, which is an increase of approximately 20 per cent over the output during the same periods of last year.

Definite steps are under way to capture permanently the domestic markets of New England and the East for soft coal. Heretofore home owners of these regions have declined to accept soft coal for home consumption except in times of acute anthracite shortage, but that the domestic sizes of bituminous coal are suitable for house heating is evident in the fact that they represent the bulk of the coal used for domestic fuel west of the Allegheny Mountains and south of Virginia, except for the territory supplied through the Great Lakes ports. Moreover, John Hays Hammond, chairman of the New England Governors' Fuel Committee, declared to President Coolidge on November 7 that New Englanders, with the heating equipment at present in use, had found they could burn soft coal very successfully. So the Smokeless Coal Operators Association of West Virginia, alert to the exigencies of the moment and anxious to establish a permanent market among household consumers in the East, has decided to establish a headquarters for the smokeless-coal industry in Boston, to educate the public in the proper use of smokeless coal and to maintain stations to prevent the sale of grades unsuitable for domestic use.

Prominent operators in the bituminous industry realize that successful introduction of soft coal into the hard-coal markets will depend largely upon price after anthracite has become available again, and leaders within the industry are vigorously discouraging competitive bidding among buyers and unwarranted inflation of prices. On this point George S. Brackett, head of the Brackett Statistical Organization of Fairmont and recognized throughout northern West Virginia as an authority on the bituminous industry, prophesied on the eve of his departure to Washington to testify before the Interstate Commerce Commission on shipments of soft coal into New England that "the soft-coal operators will put coal suitable for domestic use in the consumers' cellars at a price of \$6 or \$7 a ton below the anthracite price, provided the market for these grades becomes permanent." The justification for such a provisional statement is discernible in the refusal heretofore of Eastern home owners to use soft coal except as a scarcity of anthracite became imminent, and this usually has been too late for soft-coal operators to increase production to provide for the greater demand.

If the present campaign of the Smokeless Coal Operators and the increasing necessity for finding a substitute for hard

coal converts new markets to the bituminous industry, the requirements of the consumer will be quickly reflected in the demands of the retailers and ample production of soft coal for all purposes will inevitably follow.

### Boston Interests May Acquire \$8,000,000 West Virginia Coal Properties.

Clarksburg, W. Va.—If a deal now pending is consummated, the Massachusetts Gas Co., with headquarters in Boston, will acquire large properties in the Winding Gulf, New River and Pocahontas fields of West Virginia. The companies mentioned in connection with the purchase are the E. R. White Coal Co., comprising the Glenn White and Stokesburg plants in the Winding Gulf field, with an annual output of 1,500,000 tons; the interests of P. M. Snyder, comprising the East Gulf Co., the Princewick Coal Co. and the Pemberton Fuel Co. in the same field, and the Long Branch Coal Co. and the Glencoe Coal Co. in the New River field, with an annual output of 1,000,000 tons. The approximate price is said to be \$8,000,000.

### \$3,000,000 Store, Office and Theater Structure.

Kansas City, Mo.—A \$3,000,000 project, including a theater to seat 4000 persons, will be developed by a company controlled by the Midland Theater & Realty Co., according to an announcement here. The structure will have a frontage of 514 feet, with ample space for stores and shops. The building will be five stories high, with the theater in the center, and its walls will be sufficiently strong to permit raising to 12 stories.

### City Hall and Auditorium for Lexington.

Lexington, Ky.—Detailed plans for the proposed municipal building and an auditorium have been announced by Frankel & Curtis, architects. The city hall will be a three-story structure, providing offices for city officials, headquarters for the police department and garage.

The new auditorium will be 140 by 176 feet, and will seat 3500 persons. There will be a stage 100 by 36 feet; it will provide seating space for 430.

### \$6,500,000 Louisiana Telephone Improvements Outlined.

New Orleans, La.—An expansion program for next year involving the expenditure in Louisiana of \$6,500,000 is planned by the Cumberland Telegraph & Telephone Co. Two new exchanges and other improvements in this city will cost over \$4,000,000. More than \$1,100,000 will be expended in Shreveport and \$200,000 in Monroe.

### \$1,000,000 Apartment Building at Sarasota.

Sarasota, Fla.—R. R. Payne and associates are discussing plans for erecting a \$1,000,000 7-story fireproof apartment building here. Dwight J. Baum, New York city, is the architect. Apartments of one, two and three rooms will be laid out, all with outside exposures.

### Tavares May Get \$250,000 Hotel.

Tavares, Fla.—A campaign is under way here to promote the erection of a \$250,000 hotel, together with a theater and several stores. C. J. Sipple of Lexington, Ky., is taking an active part in promoting the project.

George F. Young has secured permit for a \$200,000 hotel to be erected in St. Petersburg, Fla., by W. B. Ferguson, contractor.



# American Plan Open-Shop Conference in San Diego.

By J. B. LANDERS, Secretary-Manager, Open-Shop Division Oklahoma City Chamber of Commerce.

Nation-wide progress in development of the American Plan Open Shop in major industries was reported at the eighth semi-annual meeting of the American Plan Open-Shop Conference in San Diego, Cal., November 5, 6 and 7. Reports from open-shop association officials and trade association officers present from more than 30 states indicated a nation-wide forward movement, especially in the commercial and job printing business, in photo-engraving and in the building and metal trades.

Commercial and job printing presented the most startling reversal of war-time class of shop figures, according to J. M. Vollmer, secretary of the Employing Printers Association of America. Approximately 71 per cent of present-day commercial and job printing is being done in shops operating under the open-shop plan, Vollmer reported, as compared with reports for 1920, which showed 70 per cent of the work done in closed shops.

A strong movement in the national industry toward the open shop was reported by Tanner H. Freeman, secretary of the Employing Photo-Engravers Association of America, who declared that a dominant note among the ranks of photo-engraving plant operators was establishment of open shops to increase efficiency and lower plant costs.

Building and metal trades employers operating under open-shop rules in virtually all sections of the nation reported that open-shop methods apparently brought more industrial peace and continuity of employment for their workers than their communities had experienced since war times. Building costs to the owners in open-shop communities averaged 30 per cent less than in closed-shop communities, the combined reports showed, although wages paid in the open-shop sections averaged equal to, and in some sections higher than, the closed-shop section wages.

Elimination of the union jurisdictional disputes and attendant construction tie-ups, greater efficiency and loyalty of the open-shop mechanic, and closer co-operation between employers and employees in the open-shop sections were reported causes of the lowered costs and increased output.

A campaign to eliminate scholastic and communistic propaganda from public-school textbooks in a number of states will be waged by the open-shop associations during the coming year, it was decided. Survey committees on school textbooks reported evidences of a nation-wide attempt to stir up class consciousness and social unrest through surreptitious introduction of Red doctrines in texts on Government and history, especially in the Eastern states.

Establishment of trade schools and vocational trade classes in every important city in the United States also was advocated. The need for hundreds of trade schools to fill gaps in the ranks of skilled mechanics, especially in the trowel and construction trades, was characterized as becoming more urgent daily. Schools now operated by open-shop associations in more than a score of American cities are placing every graduate, with applications to enter the schools and requests for graduates to fill jobs far beyond the capacities of the schools to meet, reports showed.

Educational campaigns to teach the general public just what the American plan open shop is, to show how the consuming public now has to contribute to expenses of labor-union organizations and to explain why open-shop practice most nearly fulfills requirements for a purely American industrial system will be carried on by all open-shop organizations

during the coming year. The tax on the consuming public levied directly or indirectly to support labor-union organizations is as great as all Federal taxes combined, the education committee charged.

Basic definition of the American plan open shop, adopted at the October, 1922, open-shop conference at Colorado Springs, and reaffirmed by every succeeding conference, unanimously was sustained, unchanged, at the San Diego meeting. Maintenance of present high standards of employment, complete freedom of employment relations, no discrimination against union or non-union men, and no interference with the inherent rights of laborers to enter any vocation they desire were the major principles to which the conference participants again pledged themselves.

The conference has perfected and set up machinery, the services of which are offered to communities in warding off the steady and undesired encroachments of union closed-up domination and attendant evils, and will give particular attention to those communities, institutions and individuals whose growth, progress and liberty are being strangled by the closed shop and its coterie of radical agitators.

Detroit, Mich., one of the outstanding open-shop cities of the nation, upon invitation of Pierce E. Wright on behalf of the Associated Building Employers of Detroit, was designated for the ninth semi-annual meeting, to be held in April, 1926. This will be the first meeting of the national conference ever held east of the Mississippi River, and was demanded by delegates from that district because of the extensive open-shop program being launched throughout that section.

A. C. Rees of Salt Lake City, Utah, was re-elected chairman of the conference for the ninth consecutive term. General expansion of the open-shop work, together with a broadened future program, was demanded, and a committee to formulate such an expansion and report at the Detroit conference was appointed. Members of the committee are: Albert E. Boynton, managing director, Industrial Association of San Francisco; M. J. Perrin, director, San Diego Manufacturers and Employers Association; Pierce E. Wright, secretary, Detroit Associated Building Employers; Sidney E. Cornelius, manager, San Antonio Open Shop Association, and J. B. Landers, secretary-manager, open-shop division of the Oklahoma City Chamber of Commerce.

More than 100 business executives and industrial experts, representing 30 states, were present at the conference. State vocational directors, heads of state departments of education and representatives of more direct participants, including development associations, employers' associations, industrial organizations, chambers of commerce, builders' exchanges, merchants' associations, printing, photo-engraving, metal, construction and other trades and industry organizations, covering a territory from as far east as Cleveland, Ohio, to the Pacific Coast, were present.

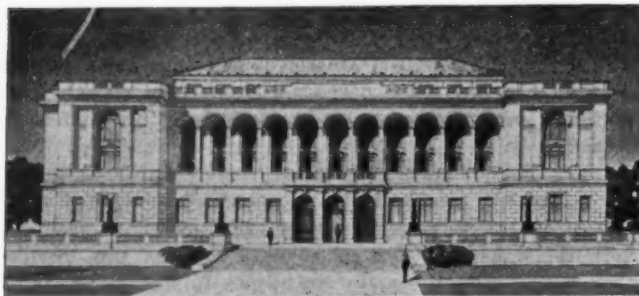
## \$1,500,000 Apartment Hotel at Tulsa.

Tulsa, Okla.—Contract has been let to the Manhattan Construction Co. of Muskogee and Kansas City for a \$1,500,000 apartment hotel for H. J. Sophian and associates of Kansas City. The main structure will be eight stories high, with four apartments on each floor.

The city of Pascagoula, Miss., has voted to sell its electric light and power plant to the Mississippi Power Co. of Gulfport.

### St. Joseph City Hall to Cost \$500,000.

Contracts have recently been awarded for the erection of a new city hall for St. Joseph, Mo., at a cost of approximately \$500,000, and piling has practically been completed for the foundation. The building will be 200 by 75 feet, three stories and basement, with concrete foundation, hardwood floors,



NEW CITY HALL FOR ST. JOSEPH, MISSOURI.

metal doors and steel sash and trim. Eckel & Aldrich of St. Joseph, are the architects, and McKim, Mead & White of New York, consulting architects. General contract has been awarded to the Lehr Construction Co. of St. Joseph. Other contracts have been awarded as follows: Heating and plumbing to the M. J. Donegan Plumbing & Heating Co., and electrical work to the American Electric Co., both of St. Joseph.

### Plan \$500,000 Waterfront Improvements.

Bradenton, Fla.—The Bradenton Chamber of Commerce has presented to the City Council a definite plan for waterfront improvements, comprising the construction of a municipal pier and necessary buildings, a yacht basin and boulevard. The council has passed an ordinance calling for an election on December 29 to decide whether \$265,000 bonds shall be issued for this work.

On December 21 street improvement bonds totaling \$265,000 will be offered for sale, while \$10,000 sidewalk bonds will be sold December 8.

### Purchase of Three Short Lines Approved.

The New Orleans, Texas & Mexico Railway Co.—Gulf Coast Lines—now part of the Missouri Pacific system, has been authorized by the Interstate Commerce Commission to acquire from W. T. Eldridge the Sugar Land Railway, 38½ miles long from Cabell, Texas, via Sugar Land to Anchor, Texas; the Asherton & Gulf Railway, 32 miles long from Asherton to Bart, Texas, and the Rio Grande City Railway, 22 miles long from Sam Fordyce to Rio Grande City.

### The Florida East Coast Canal.

The report in a recent issue of the MANUFACTURERS RECORD that the Florida East Coast Canal Company had been purchased by H. S. Kelsey of West Palm Beach has been confirmed, and a full development of this canal and of transportation along this waterway from Jacksonville down is promised. J. L. Replogle, who paid \$50,000 last spring for an option on the canal, failed to complete the purchase and the property was taken over by Mr. Kelsey and associates.

### \$3,319,000 Bonds Voted by St. Petersburg.

St. Petersburg, Fla.—Municipal bonds totaling \$3,319,000 for extensive civic improvements were authorized at the recent election here. The complete program includes extension of street railway facilities, new car barns, additional water wells, extensions to the gas plant, a new incinerator and sewers, and bridges in several sections of the city.

### Huge Ice Plant Nears Completion at Sanford.

Sanford, Fla.—The construction of the big ice plant here for P. De C. Ball of St. Louis, Mo., is proceeding rapidly and it is probable that it will be finished by the end of this month. The plant is being constructed by E. W. Sproul Co., Chicago contractors. The Ball Ice Machine Co., St. Louis, has the contract for ice-making equipment, which will consist of four electric-driven twin compressor units and three ice-making tanks to manufacture 400-pound blocks.

The present daily capacity of the plant will be 500 tons, with engine and tank room large enough to increase the capacity 300 tons. Electric current will be supplied by the Electric Bond & Share Co. through one of its subsidiary companies. An idea of its size may be gained when it is considered that up to date 355 carloads of building materials and 10 carloads of ice-making equipment have been handled and there are still 20 cars of building materials and 50 cars of ice-making equipment to be handled.

There will be a storehouse with a capacity of 15,000 tons. The icing platform will be 1350 feet long and will be capable of accommodating 62 cars at one time.

### Cotton Receipts and Shipments.

Exports of cotton for the week of November 21-27 amounted to 177,384 bales, compared with 275,616 bales last year. Exports from August 1 to November 27 amounted to 3,428,667 bales, against 3,080,281 bales for the same period a year ago. COTTON MOVEMENT FROM AUGUST 1 TO NOVEMBER 27, 1925, WITH COMPARISONS.

	1925 Bales	1924 Bales
Port receipts.....	4,998,055	4,584,760
Port stocks.....	1,494,619	1,476,889
Interior receipts.....	6,350,646	5,703,486
Interior stocks.....	1,784,345	1,545,601
Into sight.....	8,993,852	7,741,152
Northern spinners' takings.....	786,616	603,647
Southern spinners' takings.....	1,998,387	1,663,750
World's visible supply of American cotton....	4,303,438	4,345,608

The quantity of cotton ginned to November 14 was 12,249,935 bales, compared with 11,162,235 bales for the corresponding period of 1924 and 8,369,498 bales in 1923.

### New Laundry, First of \$1,000,000 Chain, Nears Completion at Miami.

Miami, Fla.—The first laundry to be erected by the Florida New Process Laundries, Inc., which plans to establish throughout the state a chain of laundries representing a total investment of \$1,000,000, is nearing completion here. The Austin Company, Cleveland, has the general contract.

The company is owned entirely by business men of New York and New Jersey, with J. F. Freiburger, head of the Onondaga Silk Corporation, Syracuse, N. Y., as president. Knight I. Faucett is secretary and general manager of the laundries.

Plans are already under way for construction of plants at Daytona Beach, St. Petersburg, Orlando, Tampa, Lakeland and Hollywood.

### \$250,000 Theater Proposed for Ocala.

Ocala, Fla.—Plans are being formulated for the erection of a \$250,000 theater here by the Famous Players-Lasky Corporation and the E. J. Sparks Enterprises Corporation. The proposed theater would serve this section for a radius of 30 miles.

### Propose Erection of \$500,000 Warehouse.

Plans for the erection of a large storage warehouse estimated to cost \$500,000 are being worked out by the J. W. Crook Stores, Baltimore. A tract of land on the Calverton road and the Pennsylvania Railroad has been acquired.



# THE IRON AND STEEL SITUATION

## Continued Strength in Steel.

Pittsburgh, November 30—[Special.]—Generally speaking, the steel market continues as active as in recent weeks and the situation is fully as strong as formerly. In prices it is a shade stronger, as there has been a stiffening in several lines, and in sheets the actual trading market is moving upward to the advanced prices announced by various mills from one to two weeks ago.

Bookings are relatively light in two lines. In oil-country tubular goods this is normally the duller period of the year and the buying is quite light. Buying of merchant pipe continues at the recent rate. Pipe mills are operating at 65 to 70 per cent, in the neighborhood of one-fourth of the production going to replenish mill stocks in anticipation of heavier buying next month for stock replenishment after January 1 inventories.

In sheets the buying is lighter, as there were heavy sales in anticipation of price advances. The advanced prices recently named, 3.35 cents for black sheets, 2.50 cents for blue annealed sheets and 4.60 cents for galvanized sheets, are practically for first-quarter contracts, mills aiming to have business to carry their operations over January 1 before insisting upon the advanced prices.

The rail-buying movement for 1926 delivery began early in September and is now nearly completed, with fully 1,600,000 tons allocated—somewhat more than usual. Not a great deal of the tonnage seems to have been formally entered on order books in September or October, and a large tonnage must have been entered this month, whereby it is practically certain the Steel Corporation's unfilled obligations will show a greater increase for November than the 391,886 ton increase reported for October. On account of lighter rail business, December may not show as large a gain, but on account of first-half contracts in tinplate and first-quarter contracts in some other lines there are chances of December showing a still larger tonnage.

Buying of wire products continues of hand-to-mouth character and represents only a fair distribution. The wire mills are not operating particularly well. Prices have been quite steady for months, too low from the mill viewpoint, and jobbers have practically no stocks. The wire trade will not run according to precedent if it does not book up customers with 60-day contracts before the end of the year and then advance prices to encourage specifying.

Awards of fabricated structural steel contracts reported last week totaled 34,000 tons, making a weekly average of 39,000 tons in the past four weeks. Bookings in the first six months of the year were unusually heavy, but the bookings have run at a somewhat higher pace since July 1.

How much of a freight-car buying movement there is going to be remains to be seen, but it is already clear that there is an improvement. For months buying was so light that the car shops almost ran out of orders and the steel industry was adjusted to a condition of little steel flowing into that channel. Thus whatever buying occurs now represents a clear gain. The Railway Age statistics show 50,951 freight cars bought in the first 10 months of the year, most of the buying being in the first half of the period, while in the first fortnight of November 11, 848 cars were bought. There is a fair volume of inquiry now in the market or in prospect.

Steel ingot production in November ran somewhat ahead of October production, estimates varying as to the increase. It is clear that the rate has been above 145,000 tons daily, or 45,000,000 tons per annum, whereupon the interesting comparison can be made that in no more than 10 per cent of the time since the war has the rate been so high, yet there were three occasions, the high rate holding for only a few

weeks at a time. On a practical basis the strongest feature of the present steel situation is not the exact rate, but the prospect that a high rate will continue for several months.

Pig iron has continued dull, with prices easily sustained. Connellsville coke has dropped \$1 more, being now offered at \$4. Last summer it was barely \$3, while its peak late in October was \$9.

## Good Demand for Pig Iron.

Birmingham, Ala., November 30—[Special.]—Furnace interests of the Birmingham district are accepting business as they desire, favoring, of course, the regular customers. Sales of iron for delivery during the first three months of the coming year call for a tonnage which covers a goodly portion of the probable make of that period and there is no doubt that the entire make will find takers. In fact, the new month, the last of the present year, is starting in with the furnaces practically sold up for four months. No business is yet reported on iron for the second quarter of next year, though inquiries have been received. Quotations are very firm; \$22 is being asked for delivery during the first three months, while a little has been sold at \$22.50. Spot iron, in lots of from one to three cars, has been sold as high as \$23 per ton, and there are many buyers of 50 to 100 and 150 tons of iron at a time. A number of plants which melt from 10 to 15 tons of iron daily are in operation and will continue their policy of buying from hand-to-mouth indefinitely.

The melt of iron, together with the movement out of the territory, still exceeds the make. This can continue but a short while yet inasmuch as the surplus iron has practically disappeared and the probable make will have to care for the steady business. Two blast furnaces on foundry iron were started up during the past 30 days. The Sloss-Sheffield Steel & Iron Co., which started the Gadsden furnace, making six in all, has plans of placing the second Sheffield furnace going. The question of raw material has brought about a little delay. This company has 120 by-product ovens in operation, together with 300 beehive ovens at Flat Top, in the western part of Jefferson county, and is furnishing coal for 700 tons of coke daily from the Semet-Solvay Company. There is a transportation problem also to the Sheffield furnaces.

The Central Iron & Coal Co. is pushing the repairs on its furnace at Holt, in Tuscaloosa county, but it will be towards the end of the year, if then, before the ironmaker can be back in operation. The 14 furnaces producing foundry iron are not getting any too much iron right now for the demands, and the belief is stronger as the 1925 year is on the wane that there will be need for iron through the entire coming year.

Cast iron pipe lettings, for pressure pipe, are still quite active, while several specifications are reported in sight, including 10,000 tons for Detroit. The soil pipe and fittings producers are feeling an improved demand and as a consequence there is much iron being melted. Quotations for both classes of pipe are showing firmness.

Anniston, the largest soil-pipe manufacturing center in the South, reports work well in hand for a valve manufactory. Gadsden is building a heating plant, besides another soil-pipe plant. The new centrifugal pressure-pipe plant of the American Cast Iron Pipe Company is making progress and will be ready for operation by March. The United States Cast Iron Pipe & Foundry Co. is developing its cupolas at its North Birmingham shops and these will permit of greater iron melt. This company expects to produce a smaller-size pipe than is now obtainable at its several shops in this district.

Machine shops and foundries in Birmingham are all active

and will keep well in service during the winter, with the brightest prospects for spring. The Birmingham Machine & Foundry Co. is confident of having several cotton presses to build during the winter. The Joubert & Goslin plant, the Hardie-Tynes Manufacturing Company and the numerous smaller shops here are all getting in work which is keeping them busy with plans looking forward to even greater activity.

The starting up of three units of the new sheet mill of the Tennessee Coal, Iron & Railroad Co. has added to the steadily improving activity in the steel line of this district. The railroads have placed many orders with the Tennessee Company for rail, railroad accessories, structural steel, plate, sheet and other shapes. The new sheet mill begins its career with a number of orders in hand and a considerable amount of business in sight. The plans are to start up the other units as business warrants, and judging from that now in sight this will not be long delayed. Demand for plate is good. Wire and wire products are strong and heavy shipments are being made.

The coal-mining activity shows no change, every effort being made to get out the product. Railroad cars is the only barrier now. In case of an emergency and cars sent in from the outside, as was done under a similar condition, it is estimated that 50,000 to 75,000 tons more coal per week can be mined here than now, and the production today is but a little under 400,000 tons weekly. Most of the coal being shipped out of the territory is of the washed variety.

The coke production is being speeded up wherever possible. Quotations eased off for a week or so, but have recovered again, and \$5.75 is minimum, with some spot business being filled even at \$6.50. Every by-product coke oven in the district in shape is in operation. Many of the beehive ovens are being brought in with upwards of 500 to 550 now going.

The scrap iron and steel market is strong, with much of the product being melted. Dealers are finding it necessary to buy in quantity, and the yard forces are busy sizing and otherwise preparing the material. No further change in prices has been made lately.

Pig iron and iron and steel scrap quotations follow:

PIG IRON.	
No. 2 foundry, 1.75 to 2.25 per cent silicon, f. o. b. furnaces.	\$22.00 to \$22.50; No. 1 foundry, 2.25 to 2.75 per cent silicon, \$22.50 to \$23.00; iron of 2.75 to 3.25 per cent silicon, \$23.00 to \$23.50; iron of 3.25 to 3.75 per cent silicon, \$23.50 to \$24.00; iron of 3.75 to 4.25 per cent silicon, \$24.00 to \$24.50; charcoal iron, f. o. b. furnaces, \$30.00 to \$32.00.
OLD MATERIAL.	
Old steel axles .....	\$19.00 to \$20.00
Old iron axles .....	18.00 to 18.50
Old steel rails .....	14.00 to 15.00
Heavy melting steel .....	14.00 to 15.00
No. 1 cast .....	17.00 to 18.00
Stove plate .....	14.00 to 15.00
No. 1 railroad wrought .....	13.00 to 14.00
Old car wheels .....	16.00 to 16.50
Old tramcar wheels .....	17.00 to 17.50
Machine shop turnings .....	8.00 to 8.50
Cast-iron borings .....	8.00 to 9.00
Cast-iron borings (chem.) .....	15.00 to 16.00

### Structural Steel Plant Nears Completion.

Clewiston, Fla.—The Clewiston Iron Co. expects to have in operation about January 1 its new plant with a monthly capacity of 2000 tons of fabricated steel. The plant is being established in connection with local industrial development fostered by Clewiston, Ltd., the owners of 2850 acres of rapidly developing townsite property. The company owns also 40,000 acres of land near by and will develop it as sugar lands and erect a sugar mill.

The steel company was organized by Major R. L. Lusk, formerly president of the Communipaw Steel Co. of New York. The plant site is near Lake Okeechobee, on the Atlantic Coast Line Railroad, about 60 miles due west of West Palm Beach. Freight and passenger ferry service will shortly be operated across the lake, permitting direct shipments by truck to Palm Beach, Miami and vicinity.

## RAILROADS

### Facts About the Railroad Freight Traffic.

For seventeen successive weeks this fall the railroads have loaded revenue freight at a rate of more than 1,000,000 cars weekly, according to the American Railway Association, whose car service division has received reports from the companies showing that during the week ended November 14 there were 1,050,758 cars so loaded, this being an increase of nearly 34,000 cars as compared with the same week of last year, although it was 12,564 cars less than the preceding week this year. Since January 1 last there have been nearly 45,500,000 cars laden with revenue freight, this showing an increase of 2,328,917 cars as compared with the corresponding period of last year.

During the five weeks ending in October and during the first two weeks ending in November loadings of bituminous coal at the mines totaled 1,471,424 cars, an increase of more than 160,000 cars as compared with the corresponding period of last year, and it may incidentally be noted that bituminous coal production during these seven weeks was the largest for any similar period in the last five years; it amounted to 83,370,000 tons, or over 10,000,000 tons more than during the same period of last year.

Railroads of the first class during the first 10 months of this year placed in service 119,243 freight cars and on November 1 there were on order with builders 24,606 cars. These lines also placed in service 1492 locomotives and on November 1 they had 218 on order, these figures including new, rebuilt and leased equipment.

### Railroad Appointments.

Appointments have been made by the Chesapeake & Ohio Railway as follows: W. S. Perry, assistant trainmaster at Huntington, W. Va.; H. C. Marrs, assistant trainmaster at Martin, Ky., in place of A. M. Davidson; A. M. Davidson, assistant trainmaster at Chillicothe, Ohio, in place of H. N. Walters, who has been appointed trainmaster at Limeville, Kentucky.

The Seaboard Air Line Railway has announced appointments in its freight traffic department as follows: T. L. Southwell, assistant general freight agent, Tampa, Fla.; F. H. Bryant, commercial agent, Orlando, Fla., in place of Mr. Southwell, promoted; F. G. Roberts, district freight agent, Miami, Fla.; J. D. Hightower, commercial agent, Tampa, Fla., in place of Mr. Roberts, promoted; O. A. Williams, traveling freight agent, Cincinnati, Ohio, in place of Mr. Hightower, promoted; L. P. King, commercial freight agent, Greenville, S. C., in place of Mr. Bryant, promoted; J. E. Wilhelt, commercial agent, Augusta, Ga., in place of Mr. King, promoted; H. G. Jones, contracting freight agent, Atlanta, Ga., in place of Mr. Wilhelt, promoted; W. W. Miller, traveling freight agent, Atlanta, Ga., in place of Mr. Jones, promoted.

### Seaboard Air Line's Florida Season.

The Seaboard Air Line Railway has published a fine folder of 35 pages, beautifully illustrated and containing a most entertaining story about fishing to be had in the Florida streams and lakes along its lines. The tale is thrilling enough to fascinate the most enthusiastic lover of the sport, and it is so obviously accurate as to accentuate its charm. The railway has also issued a two-page folder concerning its "Orange Blossom Special," which on November 21 began its regular every-day runs between New York and West Palm Beach, with connection from the latter point to Miami via a parlor motorbus.



### "Orient" Line Busy With Big Lake Oil Field Traffic.

Big Lake, Texas, November 27—[Special.]—As a result of oil development in Reagan county the Kansas City, Mexico & Orient Railroad is expected to be placed on a profitable operating basis in a few months. Frank T. Pickrell, vice-president of the Texon Oil Company, says that a contract has been made with the Orient to transport 15,000 barrels of oil a day from the Big Lake field and that this traffic should give the line an annual revenue of approximately \$3,000,000. It runs through the very heart of the proved producing area of the Big Lake field and, besides the oil traffic, it is doing a big business transporting machinery, oil-field equipment and supplies. Four rapidly growing towns—Big Lake, Best, Santa Rita and Texon—have sprung up as a result of the oil developments and they require large quantities of building materials and merchandise, another source of traffic. The Orient connects with the Santa Fe at San Angelo, 100 miles from Big Lake.

### Lumber Railroad to Be Common Carrier.

Nacogdoches, Texas, November 28—[Special.]—El A. Frost of Shreveport, La., and associates, who own approximately 200,000,000 feet of standing commercial timber in this section of east Texas, have made application to the Texas Railroad Commission for authority to operate as a common carrier their lumber railroad, which runs from Oil Springs through the eastern part of Nacogdoches county, thence to the northwest corner of San Augustine county, to within a few miles of the line of the Atchison, Topeka & Santa Fe Railway. It is proposed to operate the lumber railroad in connection with the Nacogdoches & Southeastern Railroad, which also is owned by Mr. Frost and associates. The latter line runs from Nacogdoches to Oil Springs, 14 miles. Construction of an extension of the lumber line from its present terminus in Shelby county to Duff, where it will intersect the Santa Fe, already under way. It is stated that it will take ten or twelve years to cut the 200,000,000 feet of timber which the Frost interests own, and that the proposed railroad arrangement will serve that industry as well as private shippers.

### To Solve Florida Traffic Problem.

To reach an earlier solution of transportation problems in Florida, and to otherwise improve the traffic situation, a division of the Southeast Regional Advisory Board is to be organized immediately at the instance of the Car Service Division of the American Railway Association. R. Hudson Burr, chairman of the Florida Railroad Commission, has invited 26 representative business men to constitute the organization committee, of which he will be chairman, and to attend its first meeting at the Hotel Mason in Jacksonville on December 5. The committee is to draft a plan for ameliorating conditions and this will be submitted to a general conference of all persons interested, this to be held at Jacksonville on December 18. E. F. Bilo has been appointed temporary assistant to the chairman. The railroads and the shippers will be fully represented at the meetings.

### New Safety Device.

According to a report from Joplin, Mo., Harry L. Tonkinson, formerly of that city but now of Texarkana, Texas, has patented a new safety device for railroad trains which, it is claimed, prevents cars from piling on top of one another in case of derailment. It is particularly for freight trains, but it can be applied to passenger trains with some modification.

### New Equipment and Rails.

Atlantic Coast Line, according to a dispatch from Wilmington, N. C., where the railroad's headquarters are located, has ordered \$6,000,000 more of locomotives and cars, including 30 Pacific type engines, 5 Santa Fe type and 10 switching engines, besides 500 all-steel gondola cars, 300 all-steel coal cars, 500 steel underframe box cars and 100 ballast cars. This is in addition to another large order for equipment amounting to several million dollars placed recently. The 45 locomotives, it is understood, will be built by the Baldwin Locomotive Works. The company is also reported in the market for 25 passenger cars, 30 express cars, 10 combination passenger and baggage cars, 5 combination baggage and mail cars and 5 straight mail cars.

Missouri Pacific Railroad will build 15 switching locomotives in its own shops.

Chesapeake & Ohio Railway has ordered 30,000 tons of rails, viz.: 12,000 tons from the Illinois Steel Co., 12,000 from the Inland Steel Co. and 6000 from the Bethlehem Steel Co.

Kansas City Southern Railroad has ordered 1000 tons of rails from the Inland Steel Co., 2000 tons from the Illinois Steel Co. and 3000 tons from the Bethlehem Steel Co.

St. Louis Southwestern Railway is reported to have ordered 2400 tons of rails from the Inland Steel Co. and 4100 tons from the Illinois Steel Co., this in addition to the order given the Tennessee Coal, Iron & Railroad Co. of 11,000 tons placed recently.

Norfolk Southern Railroad is reported in the market for 5 Consolidation locomotives.

New York Central Railroad, it is reported, is about to purchase 500 automobile box cars of 50 tons capacity, 1050 hopper cars of 55 tons capacity, 25 steel passenger cars, 20 dining cars, 25 baggage cars, 25 combination baggage and mail cars, 20 milk cars, and 9 combination passenger and baggage cars.

St. Louis-San Francisco Railroad is reported in the market for 34,000 tons of rails.

Norfolk & Western Railway, it is reported, will buy 5000 tons of 130-pound rails.

Illinois Central Railroad has ordered 3000 tons of structural steel from the Virginia Bridge and Iron Works and 1600 tons from the American Bridge Co.

Santa Fe system has ordered 1000 refrigerator cars, of which 500 will be built by the Pullman Car & Manufacturing Co. and 500 by the American Car & Foundry Co. It will also purchase 5 cafe observation cars.

Dierks Lumber & Coal Co. of Kansas City has ordered 25 steel underframe logging cars of 40 tons capacity from the American Car & Foundry Co.

Florida East Coast Railway has ordered 1400 tons of structural steel from the Virginia Bridge and Iron Works.

### General Agent Appointed.

H. H. Taylor has been appointed general agent of the Gulf Coast Lines and International-Great Northern Railroad, with headquarters at Houston, Texas, for special duties in the traffic department. He has hitherto represented the International-Great Northern Railroad at Chicago as district freight and passenger agent.

### To Prevent Forest Fires.

The Development Department of the Seaboard Air Line Railway, Clement S. Ucker, director, has issued a telling placard concerning forest protection which graphically shows the dangers of fires in woods. It says "Stop Burning the Grass in Forests," and then points out the damage which such practice causes.

## GOOD ROADS AND STREETS

### Bond Elections in Georgia Make Possible \$2,000,000 Highway Expenditures.

Atlanta, Ga., November 27.—Georgia's good roads program was given further impetus last week when more than \$2,000,000 worth of new work was authorized in Habersham, Whitfield, Lamar and Upson counties.

Habersham county voted a \$225,000 issue, \$200,000 to complete route No. 15 from Baldwin to Tallulah Falls and route No. 13 from the Hall county line to the Stephens county line, and \$25,000 for road machinery for county work. Together with Federal and state funds, \$675,000 of highway work will be undertaken.

Whitfield county voted \$400,000 bonds to be matched by Federal and state funds for the construction of 55 miles of highways, calling for a total expenditure of \$1,200,000.

The Bibb county commissioners voted to build six miles of highway from Atlanta to Macon in Lamar county.

Thomaston passed a \$45,000 paving-bond issue, which will be matched by \$90,000 from property owners, making possible street work costing \$135,000.

### Essay Contest for College Students.

Five hundred and fifty dollars in prizes is offered by the American Road Builders Association in a contest open to all college students for the best essay on "The New Country by Improved Highways," the awards to be made in Good Roads Week, January 11 to 15, at the annual convention and road show of the organization at Chicago. Essays are not to exceed 600 words, and will be judged on originality, knowledge of the subject, vision, English construction and general appearance, the object of the contest being "to attract the students' interest to the highway problems and to visualize the importance of highway transportation to the progress of the country."

The judges will be William H. Connell, president of the Association; C. R. Ege, president of the Highway Industries and Exhibitors Association; Thomas H. MacDonald, chief of the Federal bureau of public roads, and A. H. Blanchard, dean of engineering, University of Michigan. The first prize will be \$200 in cash, or \$250 toward defraying college expenses; second, \$100 in cash, or \$125 toward college expenses; third, \$50 in cash, or \$75 toward expenses; fourth and fifth, \$25 in cash, or \$50 toward expenses.

### North Carolina Bus Lines Merged in \$2,000,000 Corporation.

Raleigh, N. C.—The Carolina Coach Co., capitalized at \$2,000,000, has been incorporated here as the result of the purchase and consolidation of all bus lines between Raleigh and Greensboro and the purchase of three other lines leading out of the city by Hambleton & Co., investment bankers of Baltimore. The principal office of the new company will be in this city. Sanderson & Porter, engineers, of New York will have charge of operating the lines.

The Central Bus Station will be enlarged and improved. Improvements will also be made to stations in the towns served. The companies purchased and merged include Safety Coach Line, Carolina Motor Coach Line, Southern Transit Corporation, Golden Star Bus Line and Safety Transit Line.

### Florida County Votes \$1,500,000 Bonds.

Perry, Fla.—By a big majority voters in Taylor county have approved the issue of \$1,500,000 bonds for new roads and improvements to established highways.

### \$1,000,000 Road Bonds Offered.

Brooksville, Fla.—The Board of County Commissioners of Hernando county will receive bids December 7 for \$1,000,000 road bonds, to bear 5½ per cent interest.

### \$322,000 Cost of Dallas-Fort Worth Highway.

Austin, Texas.—Bids have been received for the Dallas-Fort Worth highway by the State Highway Commission, the Fuller Construction Co. of Dallas submitting the low bid of \$322,084. The present 20-foot roadway is to be trimmed to 18 feet and a concrete shoulder three feet wide will be placed on each side, making the roadway 24 feet wide. The present surface will be topped with a bituminous wearing surface; then a 2½-inch wearing surface will be added. Two bridges and numerous culverts are included.

### \$2,000,000 Contracts to Be Awarded.

Jefferson City, Mo.—Bids will be received December 11 for 41 road projects in 18 counties and for new and rebuilt bridges to the number of 51 involving an estimated expenditure of more than \$2,000,000. This will be the last letting for the year, and with the award of contracts for these projects the total commitments for 1925 will approximate \$35,000,000.

The total mileage included in the projects for which bids are requested is 126, of which 39 miles will be concrete, 28.6 miles gravel surface and 59 miles will be graded earth.

### Prizes for Highway Safety Essays.

Prizes for elementary school pupils for the best essays on Highway Safety and for elementary school teachers for the best lessons on the same subject are offered by the National Automobile Chamber of Commerce, under the auspices of the Highway Education Board, as a feature of the fifth national safety campaign. Of 438 medals and 438 cash prizes for pupils, each state will get one first and one second, with a varying number of third prizes, including: Alabama, seven; Arkansas, two; District of Columbia, two; Florida, four; Georgia, five; Kentucky, seven; Louisiana, six; Maryland, three; Mississippi, eight; Missouri, nine; North Carolina, eight; Oklahoma, eight; South Carolina, four; Tennessee, eight; Texas, seventeen; Virginia, seven; West Virginia, five.

For children the subject is, "My School's Share in Highway Safety," essays limited to 500 words; for teachers, "Lessons for Children on Highway Safety," not less than 1000 or more than 3000 words. The closing date is not later than February 28 next. Essays are to be handed to school principals.

### South Carolina Counties Plan Ambitious Road-Building Program.

Dillon, S. C.—Through the efforts of the Dillon Chamber of Commerce the legislative delegation from this county has completed arrangements with the South Carolina Highway Commission whereby \$500,000 will be advanced to the state to construct a hard-surfaced highway to the Marion county line. Dillon county will be reimbursed in 10 years for the principal from gasoline, oil and auto license taxes under the "pay-as-you-go" plan of financing highways.

The counties of Dillon, Florence, Williamsburg, Beaufort, Colleton and Jasper have been formed into a tentative road district, and the counties of Charleston and Berkeley into a similar organization. These eight counties expect to build



under the same plan a hard-surfaced highway from the North Carolina line near Dillon to the Savannah River bridge over the Savannah River. This will be a link of the Coastal Highway from Quebec to Miami. A plan is being worked out for financing this big project, to be presented to the next General Assembly which meets in January. North Carolina is now building its link of this important highway.

### **\$1,315,000 Highway Awards in Florida.**

Tallahassee, Fla.—Highway and bridge contracts aggregating \$1,315,000 were let by the State Highway Department recently. The mileage represented is 117, including work in Hamilton, St. Johns, Okaloosa, Holmes, Hardee, Highlands, Washington, Citrus, Putnam and Hernando counties. Awards are still to be made on four projects in Putnam, Hardee and Clay counties.

### **Hog Island Causeway Contracts Let.**

Charleston, S. C.—Contracts have been let by the State Highway Department for the Hog Island causeway, near Mount Pleasant. The Dawson Engineering Co. will erect the bridge over Shem Creek, the Mayfield Contracting Co. will grade and surface the roadway from Mount Pleasant to the end of the marsh, and Sanford & Brooks will construct the fill across the marsh to the Cooper River.

### **153 Miles of Roads for an Arkansas County.**

Pine Bluff, Ark.—Plans are being discussed here for a big improvement district for the purpose of building 153 miles of highways in Jefferson county, including 88 miles of concrete and 65 miles of gravel roads. This city is to be in the district, and roads will radiate to the county line in nine directions from here.

### **Notes on Good Roads Construction.**

Knoxville, Tenn., will issue bonds totaling about \$300,000 so that contracts may be awarded for paving work outlined.

Barr Bros. & Co., New York city, have purchased \$228,000 of paving bonds issued by the city of Charleston, S. C.

Bids will be received this week by the Board of County Commissioners at Tampa, Fla., for \$1,100,000 Plant City Special Road and Bridge District, Hillsborough county, bonds.

The MacDougald Construction Co., Atlanta, has been awarded contract for paving five miles of streets in Waycross, Ga., to cost \$216,000.

Humphreys county, Mississippi, has voted a bond issue of \$100,000 to complete a section of state highway between Silver City and Midnight.

The City Commissioners of West Palm Beach, Fla., have sold street-paving bonds totaling \$1,850,000 to A. C. Allyn and Norris Mather, bond firms of Chicago.

The Board of County Commissioners of Manatee county, Florida, will receive bids December 7 at Bradenton for \$200,000 bonds for hard-surfaced highways.

Sealed bids will be received until December 15 by the Board of Commissioners of Carteret county at Beaufort, N. C., for the purchase of \$700,000 of road and bridge bonds.

The Board of Commissioners of Palm Beach county will receive bids at West Palm Beach, Fla., December 18 for \$200,000 road bonds to be issued by Special Road and Bridge District No. 21.

Hart county, Georgia, has voted a bond issue of \$200,000 for the construction of roads for the double purpose of giving employment to labor in the county and to secure hard-surfaced highways.

## **TEXTILE**

### **\$350,000 Expansion Program at Chattanooga.**

Chattanooga, Tenn.—Plans for the immediate construction of another big addition to the spinning plant of the Dixie Mercerizing Co. have been officially announced. It will be two and a half times the expansion made at the plant during this year, and together with the erection of additional houses for employes will call for an expenditure of \$300,000 to \$350,000.

The new building will be mill construction, two stories high, 150 by 152 feet, providing space for 7000 spindles. This will bring the total number of spindles to 22,000. The plant will operate day and night because of the big volume of business in hand.

The structure will have steel beams, steel sash, brick walls and wood floors. Two section warehouses will be erected, 50 by 100 feet, and a waste room 40 by 60 feet, together with 25 cottages.

Contracts for the buildings will be let December 16; none of the other contracts has yet been placed. Robert & Co., Atlanta, Ga., are the engineers.

### **How a Big Mill Business Was Built in the South.**

"World Leadership in Denims Through Thirty Years of Progress." Bearing this title, a handsomely prepared and finely illustrated book has been published by the Proximity Manufacturing Company and dedicated to the founders of the Cone Mills at Greensboro, N. C., these establishments being the Proximity Mills, the White Oak Mills and the Proximity Print Works. Moses H. Cone and Caesar Cone, sons of Herman Cone of Baltimore, were the founders, and they built the Proximity Mills in 1895 and 1896. They were natives of Tennessee, but during their youth the family moved to Baltimore, where Herman Cone engaged in the wholesale grocery trade, his business becoming known in 1878 as H. Cone & Sons. In that firm they had their first business experience, and after the firm dissolved in 1890 they handled cotton goods in New York, N. Y., as the Cone Export & Commission Co., which concern in 1893 established a main office at Greensboro to be in closer touch with mill owners. Perceiving the potentialities of cotton spinning in the South, they bought several hundred acres of land just outside of Greensboro and built their first mills, starting with 240 looms. The White Oak Mills, built 10 years later, has, it is stated, become the largest denim manufacturing plant in the world, and the two mills operate 4600 looms. The print works was built after the mills and it has a capacity of 125,000 yards a day. The three factories employ about 3000 people and support a population of 15,000.

Both Moses Cone and Caesar Cone have passed on, but Bernard M. Cone, a younger brother, is now head of the company, in which others of the family are also represented as officials, and the ideals of the founders of the business are maintained and preserved. The name Proximity Mills was selected because of the nearness of the location to the cotton fields, and stress is laid upon the statement that these establishments "are communities, not factories," to quote from the foreword to the book, and it is further remarked "Their success has been based upon a humanitarian policy, upon the development of character, skill and loyalty in the upbuilding of a great organization." The founders began their work, it is stated, by bringing people from the hills to the mills, teaching them to work and educating and otherwise doing what they could for their welfare. The pictures tell the story.

# LUMBER AND BUILDING MATERIALS

## Weekly Lumber Movement.

Washington, November 27.—The National Lumber Manufacturers Association received telegraphic reports from 384 of the larger softwood mills and 108 hardwood mills of the country for the week ended November 21. The 347 comparably reporting softwood mills indicated that production and new business were about the same, with an increase in shipments, as compared with reports from 352 mills the week earlier. Increases in production and decreases in shipments and new business were noted in comparison with the same period a year ago. The hardwood operations report slight decreases in production and new business, with shipments about the same as reported from 110 mills the week before.

The unfilled orders of 235 Southern Pine and West Coast mills at the end of last week amounted to 624,378,542 feet as against 601,829,407 feet for 235 mills the previous week. The 131 identical Southern Pine mills in the group showed unfilled orders of 294,353,724 feet last week, as against 289,272,480 feet for the week before. For the 104 West Coast mills the unfilled orders were 330,024,728 feet, as against 312,556,927 feet for 104 mills a week earlier.

Altogether the 347 comparably reporting mills had shipments 104 per cent and orders 108 per cent of actual production. For the Southern Pine mills these percentages were, respectively, 117 and 125, and for the West Coast mills 94 and 104.

Of the reporting mills, the 341 with an established normal production for the week of 222,361,660 feet gave actual production 105 per cent, shipments 107 per cent and orders 112 per cent thereof.

The following table compares the national lumber movement as reflected by the reporting mills of seven regional associations for the three weeks indicated:

	Past week	Corresponding week, 1924	Preceding week 1925 (revised)
Mills .....	347	379	352
Production .....	220,835,846	271,302,639	222,252,923
Shipments .....	230,416,083	233,273,007	192,798,609
Orders .....	237,748,954	276,399,417	238,388,095

The following revised figures compare the lumber movement of the seven associations for the first 47 weeks of 1925 with the same period of 1924:

	Production	Shipments	Orders
1925 .....	11,361,743,265	11,202,958,064	11,027,399,108
1924 .....	10,854,414,271	10,775,638,235	10,562,441,591

The Southern Cypress Manufacturers Association of New Orleans for the week ended November 18 reported from 16

mills a production of 5,592,814 feet, shipments 6,240,000 and orders 7,980,000. In comparison with reports for the previous week this Association showed production about the same, and a substantial increase in shipments and new business.

The Southern Pine Association reports from New Orleans that for 131 mills reporting, shipments were 17.40 per cent above production and orders 25.02 per cent above production and 6.49 per cent above shipments. Of the 120 mills reporting running time, 71 operated full time, 18 of the latter overtime, and three of the 19 mills on a five-day schedule ran double shift. Three mills were shut down and the rest operated from one to five and one-half days.

The North Carolina Pine Association of Norfolk, Va., with five fewer mills reporting, showed marked decreases in production and shipments, while new business was about the same as that reported for the week earlier.

The hardwood mills of the Northern Hemlock and Hardwood Manufacturers Association reported from 13 mills production as 704,000 feet, shipments 2,087,000 and orders 1,290,000.

The Hardwood Manufacturers Institute of Memphis, Tenn., reports from 95 units production as 10,953,574 feet, shipments 17,839,908 and orders 18,368,153. The normal production of these units is 16,923,000 feet.

For the past 22 weeks all hardwood mills reporting to the National Lumber Manufacturers Association give production 352,134,469 feet, shipments 418,439,499 and orders 452,725,054.

## \$350,000 Cement Plant Extensions.

Chattanooga, Tenn.—Construction is proceeding on extensive improvements at the Signal Mountain Portland Cement Company's plant near here. Additional finished cement storage for 100,000 barrels, 75,000 barrels of clinker and for 50,000 tons of stone is being provided. An electric power plant to be operated by boilers using waste heat from the kilns may also be constructed. The total cost of the work now under way is \$350,000. The Cowham Engineering Co. of Chicago is supervising the construction.

## Wood Truss Firm to Establish Atlanta Plant.

Atlanta, Ga.—McKeown Bros. Co. of Chicago and New York will establish a plant here to manufacture wood trusses and building supports. Four buildings are to be erected on a five-acre tract. The annual payroll will approximate \$400,000, it is announced.

## SOFTWOOD LUMBER MOVEMENT FOR FORTY-SEVEN WEEKS, AND FOR WEEK ENDING NOVEMBER 21.

	Production		Shipments		Orders	
	1925	1924	1925	1924	1925	1924
<b>Southern Pine Association:</b>						
Total .....	3,617,211,506	3,674,281,585	3,573,186,133	3,699,253,188	3,595,732,965	3,654,252,193
Week (131 mills) .....	66,715,326	70,096,345	78,327,060	81,628,637	83,408,304	88,113,872
<b>West Coast Lumbermen's Association:</b>						
Total .....	4,709,275,122	4,397,326,949	4,852,657,718	4,500,761,077	4,807,488,579	4,406,009,358
Week (104 mills) .....	104,847,909	98,441,703	98,248,042	96,237,462	108,594,417	121,618,767
<b>Western Pine Manufacturers Ass'n:</b>						
Total .....	1,654,673,000	1,478,970,000	1,492,193,000	1,375,711,000	1,465,893,000	1,368,260,000
Week (36 mills) .....	33,940,000	25,991,000	25,680,000	24,046,000	21,962,000	36,175,000
<b>California Redwood Association:</b>						
Total .....	351,164,000	399,693,000	333,253,000	320,276,000	330,600,000	319,722,000
Week (15 mills) .....	6,255,000	8,481,000	11,485,000	7,813,000	7,078,000	6,884,000
<b>North Carolina Pine Association:</b>						
Total .....	423,482,637	357,277,937	400,729,223	362,401,270	335,196,564	327,385,040
Week (39 mills) .....	5,010,611	10,478,591	5,974,381	11,091,788	7,971,233	12,117,778
<b>Northern Hemlock and Hardwood</b>						
(Softwood) total .....	155,506,000	132,264,000	117,613,000	112,613,000	95,542,000	86,841,000
Week (13 mills) .....	756,000	2,017,000	1,347,000	3,035,000	1,034,000	1,674,000
<b>Northern Pine Manufacturers Ass'n:</b>						
Total .....	450,431,000	414,600,800	433,326,000	404,622,700	396,946,000	399,972,000
Week (9 mills) .....	3,311,000	1,797,000	9,354,600	9,321,100	7,701,000	9,816,000
General total for 47 weeks .....	11,361,743,265	10,854,414,271	11,202,958,064	10,775,638,235	11,027,399,108	10,562,441,591
<b>California White and Sugar Pine:</b>						
Total .....	*1,278,517,000	1,061,096,000	1,132,194,000	783,559,000	934,718,000	10,418,000
Week (21 mills) .....	27,943,000	8,970,000	24,555,000	11,130,000	19,084,000	10,418,000
General total for week .....	220,835,846	217,302,639	230,416,083	233,273,007	237,748,954	276,399,417

\*Revised figures not included in general totals. Represents about 78 per cent total production California pine region.



### Nation Making Progress in Reforestation.

An exhaustive survey of forestry legislation by the states during 1925, published by the National Lumber Manufacturers Association, reveals that the nation is earnestly wrestling with the problem of forest perpetuation and reforestation. Twenty-six of the forty-two states which had legislative sessions this year adopted 71 important forestry laws. These laws frequently deal with the fundamental problems of taxation and protection against fire.

"The outlook for private reforestation on an extensive scale," says the forest economist of the Association, "is becoming most hopeful. This survey shows that the public is beginning to do its part. When the economic position of the forest industries permanently improves, reforestation will have a great impetus. Already we have reports that about 50 great commercial forest companies have undertaken systematic reforestation. The public must learn that reforestation and forest utilization go hand in hand. Reforestation will not be helped by disuse of forest products. It is a costly process and must be made to pay its way if it is to be carried out by private capital."

Perhaps the most radical measure, according to the survey, was that adopted by Michigan, a state now practically denuded of coniferous timber but once the leading lumber producer of them all. The Michigan law takes commercially reforesting land out of the ordinary land-tax group and makes its product subject to a yield tax when removed. The land itself is subject only to a flat annual tax of five cents an acre on pine and ten cents an acre on hardwood land. To make up for the local loss of taxes while new forests are growing the state government is bound to pay five cents an acre into county treasuries for all reforesting land within their boundaries. The yield tax is fixed at 25 per cent of the value of the timber at the time of its removal from the land. Taken together with anti-fire measures, the new Michigan law is considered by many foresters as solving the problems of taxing forests without penalizing reforestation and at the same time providing forest communities with necessary current revenues.

The California Legislature submitted a Constitutional amendment exempting growing trees from taxation. Minnesota is again to vote on a yield-tax amendment, Wisconsin adopted a Constitutional amendment broadening legislative powers.

Including legislation before 1925, the Lumber Association finds that 23 states have enacted laws designed to encourage forestry, as follows: Alabama, Connecticut, Illinois, Indiana, Iowa, Kansas, Louisiana, Maine, Massachusetts, Michigan, Minnesota, Mississippi, Nebraska, New Hampshire, New York, North Dakota, Ohio, Pennsylvania, Rhode Island, South Dakota, Vermont, Wisconsin, Wyoming.

### Crushed Rock Corporation to Build Plant.

Miami, Fla.—The Miami Crushed Rock Corp., capitalized at \$300,000, has purchased a large acreage in the Dade county rock district at Kendall, Fla., and will erect at once a modern rock washing and screening plant with an output of more than 1000 cubic yards daily. The company will quarry coral rock, crush, wash and screen and separate the different sizes of rock and the sand.

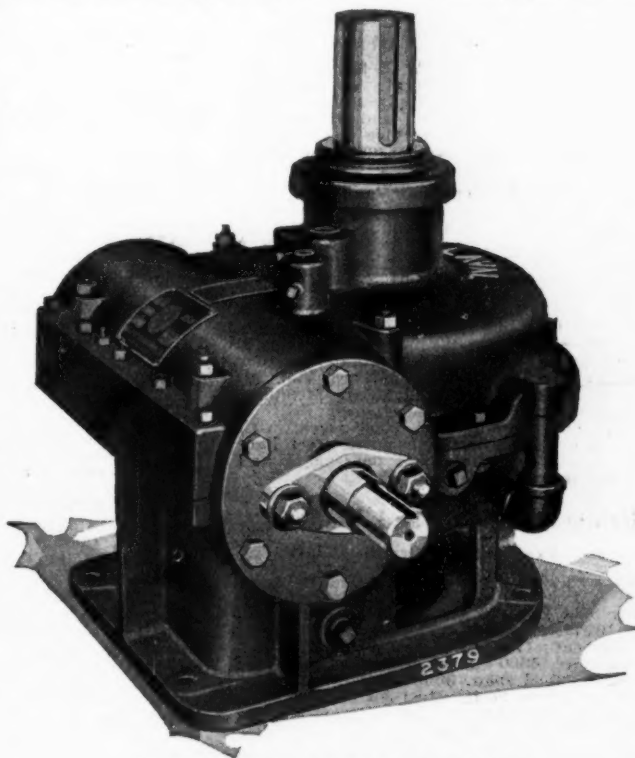
The officers of the new company include: Edwin C. Moore, Coral Gables, president and general manager; Clarence G. Sayles, vice-president and assistant treasurer, and Harry L. Finkle, treasurer-secretary, both of Providence, R. I.

An election will be held in three road districts of Goliad county, Texas, on December 19, on a proposition to issue \$420,000 bonds.

## MECHANICAL

### Worm Reduction Gear for Vertical Shaft Drive.

Worm reduction gears, in addition to reliability, compactness, simplicity and efficient operation, also have the valuable characteristic that the driven shaft is at right angles to the driving shaft. Where the driven shaft is horizontal it permits the motor to be placed out of the way, alongside of a machine, instead of projecting out across aisle space. For vertical shaft drives it is even more convenient, since it does



NEW REDUCTION GEAR AS IN USE.

away with bevel gears and vertical belts. It is ideal for vertical agitators, autoclaves, mixers, chaser pan mills, etc.

The accompanying picture shows a worm reduction gear for vertical shaft drive recently developed by the DeLaval Steam Turbine Co., Trenton, N. J. The gear casing supports the worm bearings and also the lower bearing of the driven shaft while the upper shaft bearing is held by the casing cover. The oil is carried at such a level that the worm and gear wheel dip into it, insuring copious lubrication. The lower wheel-shaft bearing is always immersed in oil and has spiral grooves to insure circulation of the lubricant.

To provide oil for the upper wheel bearing and thrust plate a small reciprocating oil pump is incorporated in the casing cover. The plunger of this pump projects downward against a cam, the rotation of which actuates the plunger that, by means of ball check valves, draws in oil through the suction pipe projecting from the under surface of the cover down into the oil in the casing.

For larger size reductions, where the worms run at fairly high speeds, it is not desirable to immerse the worm and wheel on account of fluid friction, and a positive pressure oiling system is therefore used to feed oil to all the bearings and to the worm threads and gear teeth at the contact points.

There is a full line of these drives, and they can be had with shaft extending either upward or downward.

Okfuskee county, Oklahoma, has voted a bond issue of \$200,000 for the erection of a courthouse.

# CONSTRUCTION DEPARTMENT

## EXPLANATORY

Additional information is published about all enterprises mentioned in this department as soon as such data can be obtained.  
An asterisk (\*) following an item indicates that the enterprise has been reported in a preceding issue.

## DAILY BULLETIN

The Daily Bulletin is published every business day to enable its subscribers to follow up promptly the industrial, commercial, railroad, financial, building and general business development of the South and Southwest. To machinery manufacturers and dealers, contractors, engineers, and others who require daily information of every new enterprise organized and details about important additions to enterprises already established, the Daily Bulletin is invaluable. Subscription price, \$20.00 a year.

### Airplane Plants, Stations, Etc.

Fla., St. Petersburg—F. C. Shipman, representative of Stout Metal Airplane Co., Dearborn, Mich., reported plans line linking important cities of Florida and ultimate establishment of hourly service between St. Petersburg, Tampa, Melbourne and Palm Beach.

Ga., Atlanta—Cornelius Vanderbilt, Jr., 640 Fifth Ave., New York, plans to equip principal air routes of the country with standard terminal facilities, to be known as The Vanderbilt Air Ports; two fields at Jacksonville and Daytona, Fla., are equipped and others are to be at Palm Beach, Miami, Tampa and Orlando; another route to be opened will extend from Boston to Jacksonville, via New York, Washington, Richmond, Va., Columbia, S. C., and Savannah; another route linking Detroit with Atlanta, via Chicago, Ill., Indianapolis, Cincinnati, Memphis, Nashville and Chattanooga; each field to average between 500 and 1000 acres, with either L or X landing lanes; will erect hangars, hotels for pilots and passengers and probably later aviation suburbs.\*

### Bridges, Culverts and Viaducts

#### Proposed Construction

Ala., Dadeville—Tallapoosa County Commrs., J. Percy Oliver, Judge of Probate, receives bids Dec. 16 for 4 bridges and fills: Two 100-ft. steel spans, 22,000 cu. yd. earth embankment; two 80-ft. steel spans, 4520 cu. yd. concrete, 4000 cu. yd. earth embankment; one 40-ft. steel span, 9000 cu. yd. earth embankment; two 20-ft. steel spans, 6000 cu. yd. earth embankment; plans from Walter Strother, Engr. in charge.

Ala., Huntsville—See Roads, Streets, Paving.

D. C., Washington—Executive Officer, Arlington Memorial Bridge Co., Room 1613, Navy Bldg., receives bids Jan. 7 for piers and abutments of Arlington Memorial Bridge across Potomac River, Washington.\*

Fla., Bradenton—Manatee County Commrs., Robt. H. Roesch, Clk., receive bids Dec. 18 for 675-ft. pile trestle Long Boat Inlet Bridge, between Long Boat and Anna Maria Keys; plans on file and from George A. Ralph, County Highway Engr.

Fla., Fort Lauderdale—City Commrs. plan drawbridge over Las Olas sound; W. C. Kyle, Commr. See Financial News—Bond Issues Proposed.

Fla., Jacksonville—Duval County Commrs. receive bids in about 2 weeks for paving, fill, etc., on McGirt's Creek Bridge.

Fla., Key West—Monroe County Commrs. plan toll bridges in connection with highways. See Financial News—Bond Issues Proposed.

Fla., New Smyrna—Volusia County Commrs., DeLand, plan approach to Lytle Ave. Bridge at New Smyrna. See Financial News—Bond Issues Proposed.

Fla., Sanford—Seminole County Commrs., V. E. Douglas, Clk. Circuit Court, receive bids Dec. 21 for 664 lin. ft. creosoted trestle bridges; plans on file and from Fred T. Williams, Engr.

Missouri—State Highway Dept. will build 52 bridges. See Roads, Streets, Paving.

N. C., Lexington—State Highway Comm., Raleigh, plans bridge across Yadkin River at Oakes' Ferry or Woods Island; J. Elwood Cox, Fifth Road Dist. Commr.

N. C., Marion—Southern Ry. Co., B. Hayes, Structural Engr., Washington, D. C., plans bridge over Bullocks Creek on Marion-Kingville line.

S. C., Columbia—Southern Ry. Co., B. Hayes, Structural Engr., Washington, D. C.,

plans 2 bridges on Columbia-Spartanburg road; over Cedar Creek, across Broad River.

S. C., Lancaster—Lancaster County appropriated \$12,500 toward bridge across Catawba River near Fort Lawn on Calhoun Highway. Address County Commrs.

Tennessee—State Highway Dept., Nashville, receives bids Dec. 11 for 2 bridges. Rutherford County, steel I-beam superstructure, including wooden floor, for bridge over Stones River, near Murfreesboro, on State Highway No. 51; Claiborne County, reconstruct floor system, including approach spans, replace main diagonal of steel span and build new abutments of steel bridge over Powell River, on State Highway No. 83.

Tex., Cuero—See Roads, Streets, Paving.\*

Tex., Fort Worth—See Roads, Streets, Paving.

Tenn., Gallatin—Sumner County Commrs. contemplate bridge over Bledsoe Creek.

Tex., Point Isabel—Gulf Coast Causeway Co., Point Isabel and Galveston, plans 119 mi. toll causeway along coast, Point Isabel toward Galveston, Tarvia and gravel, estimated cost \$2,000,000.

Tex., Richmond—Fort Bend County, W. I. McFarlane, County Judge, receives bids Dec. 14 to gravel 1500 ft. approaches to Rosenberg Bridge; plans from Chas. K. Kendall, County Highway Engr., Sugar Land.

Tex., Seymour—State Highway Comm., Austin, will build 3 bridges. See Roads, Streets, Paving.

Va., Bristol—City plans bridge across Beaver Creek, connecting Holston Ave. section with Bluff City road; also street connecting with Bluff City road at Melrose St. and with Haynes St. and Seventh Ave. Address City Clk.

Va., Spotsylvania—State Highway Comm., Richmond, received low bid from C. S. Luck & Sons, 1617 Brook Rd., Richmond, for 38-ft. 10-in. concrete beam span bridge over Ny river, Spotsylvania County.\*

#### Contracts Awarded

Ala., Fayette—State Highway Comm., Montgomery, let contract to Lamb & McLeMORE, Eutaw, at \$8194 for 79-ft. concrete bridge over ravine on road from Fayette to Tuscaloosa County line.\*

Ark., Alma—State Highway Dept., Little Rock, let contract to Luten Bridge, Box 653, Little Rock, for bridge across Frog Bayou on Van Buren-Alma road, 3 reinforced concrete arches.\*

Florida—State Highway Dept. will build 4 bridges. See Roads, Streets, Paving.

Fla., Key West—See Roads, Streets, Paving.

Fla., West Palm Beach—Palm Beach County Commrs. let contract to Champion Bridge Co., Wilmington, Ohio, at \$83,000 for bascule bridge across Florida East Coast Canal at Monet Road.

Okla., Tulsa—Tulsa County Commrs. let contract to E. G. Fike & Co., Nebraska Bldg., at \$33,066, for steel and concrete bridge over Bird Creek on Tulsa-Skiatook road; replace old bridge.

S. C., Charleston—State Highway Dept., Columbia, let contracts for causeway and bridge: Mayfield Construction Co., Denmark, to grade and surface 8650 ft. road through highland and to marsh, including fill across marsh on each side Shem Creek, for Hog Island Causeway near Mount Pleasant; Sanford & Brooks, Box 213, Charleston, 2930 ft. hydraulic fill across marsh to Cooper River and 220 ft. dredging of channel; Dawson Engineering Co., for 339-ft. creosoted timber bridge over Shem Creek; Samuel McGowan, Ch. Highway Commr.\*

Tenn., Memphis—Illinois Central, A. F.

Blaess, Ch. Engr., Chicago, let contracts to Virginia Bridge & Iron Co., Roanoke, for 1500 tons structural steel for viaduct at Memphis; to American Bridge Co., 71 Broadway, New York, for 1600 tons for 6 bridges.

Okla., Bartlesville—Washington County, W. K. Blachly, County Clk., receives bids Dec. 7 for 2 reinforced concrete bridges, 33 and 40 ft. spans; plans on file.

Tex., Hidalgo—Valley Bridge Co., Lon P. Piper, Pres., let contract to Austin Bridge Co., 1813 Clarence St., Dallas, at about \$100,000 for 450-ft. steel suspension bridge across Rio Grande River, near Hidalgo, 40 ft. above high water line.

### Canning and Packing Plants

Miss., Starkville—R. M. Hendee, Sec. Peterman Construction Co., 20 W. Jackson Blvd., Chicago, Ill., reported interested in erection of canning plant.

### Clayworking Plants

Miss., Greenwood—Mississippi Clay and Manufacturing Co., capital \$25,000, incorporated; J. A. Mann, H. B. Levy.

Mo., Vandalla—Vandalla Firebrick Co., Toledo, O., will rebuild portion of Farber brick plant burned at loss of \$250,000.

Tex., San Antonio—Star Brick and Tile Co., Inc., 610 E. Quincy St., reorganized with \$150,000 capital; A. S. Busby, 615 E. Quincy St., operating plant; overhauling machinery and building where needed. (See Machinery Wanted—Brick Cutter.)

### Coal Mines and Coke Ovens

Ga., Atlanta—Packs Smokeless Fuel Co., 615 Bank of Commerce Bldg., incorporated; G. L. Hartley; operations in Fayette County.

Ky., Middlesboro—Paramount Coal Co., capital \$63,000, organized by consolidation of Bellman Coal Co., Winna Coal & Coke Co. and East Point Coal Co.; J. L. Manning, W. E. Cabell.

Ky., Whitesburg—Red Star Coal Co., capital \$10,000, incorporated; Alex. Taylor, Frank Grimes.

Mo., Excelsior Springs—Fairplay Coal & Development Co., capital \$75,000, incorporated. J. D. McDermott.

W. Va., Charleston—Superior Central Mining Co., capital \$500,000, incorporated; N. L. Anderson, L. Williams; will operate mines in Kanawha, Fayette and Nicholas Counties.

W. Va., Elkhurst—Elkland Mining Co., capital \$50,000, incorporated; B. C. Barber, W. S. Pierson.

W. Va., Huntington—Paul Logan Coal Co., Coal Exchange Bldg., capital \$100,000, H. A. Zeller, developing in Logan County.

W. Va., Premier—G. W. Lambert, Welch, reported acquired the Flanagan Coal Co.

### Concrete and Cement Plants

Ala., Oak—South Baldwin Brick Corp., Box 222, Foley, erecting sand lime brick plant, daily output 18,000 bricks; construction by owner. (See Machinery Wanted—Lime.)

### Cotton Compress and Gins

La., Crowley—L. O. Wade, Crowley Cotton Co., will erect cotton gin.

Miss., Hattiesburg—Farmers' Co-Operative Gin Co., capital \$20,000, incorporated; R. G. Lee, L. J. Morris.

### Cottonseed-Oil Mills

Okla., Wagoner—C. C. Hultquist, 726 Exchange Natl. Bank Bldg., and J. H. Pat-

In writing to parties mentioned in this department it will be of advantage to all concerned if the Manufacturers Record is mentioned.



ton, Muskogee, acquired from Choctaw Cotton Oil Co. oil mill and gin; will incorporate Independent Cotton Oil Co. and operate.

### Drainage, Dredging and Irrigation

Ark., Osceola—Contracts for clearing and constructing sub-district No. 1 of Carson Lake Drainage Dist. No. 8, Mississippi County, awarded to Oscar Kotechitzky, England, at \$266,216, and to W. J. Gleason, Nevada, Ia., at \$260,000; R. E. Lee Wilson, Jr., Commr. Dist. No. 8.

Ark., Osceola—Contracts for construction and clearing in Sub-District No. 3 to Drainage Dist. No. 9, Mississippi County, were awarded as follows: To Roy L. Igo, Indianola, Iowa; Clark Brothers Construction Co., Clinton, Iowa; Briggs & Drew, Omaha, Neb.; Broderick Brothers, Villisca, Iowa; J. H. Boyce Co., Omaha, Neb.; Crumprecker & Adams, Morehouse, Mo.; H. Sanders, Leachville, Ark.; Morgan Engineering Co., Engrs., Goodwyn Institute, Memphis, Tenn.\*

Fla., Fort Myers—See Land Development.

Fla., Fort Pierce—See Miscellaneous Construction.

Fla., St. Petersburg—See Miscellaneous Construction.

La., Thibodaux—Comms. of the Lafourche-Terrebonne Drainage Dist. will construct complete gravity drainage system, approximately 1,000,000 cu. yds. excavation; plans with M. J. Palmer, Sec., Schriever, La. (See Machinery Wanted—Drainage.)

S. C., Charleston—See Bridges, Culverts, Viaducts.

Tex., Bay City—Comms. of Matagorda County Conservation & Reclamation Dist. No. 1 receives bids Dec. 19 for dredging, clearing and grubbing, install drainage structures, build bridges, etc.; E. N. Gustafson, Engr., Bay City; H. Black, Dist. Engr., Markham, Tex. (See Machinery Wanted—Dredging, etc.)

Tex., Brownsville—See Miscellaneous Construction.

Va., Portsmouth—See Miscellaneous Construction.

### Electric Light and Power

Ala., Birmingham—City Comsn., J. M. Jones, Jr., Pres., will install additional street lighting.

Ala., Daphne—Deuel Power Co., Robertsdale, applied to Alabama Public Service Comsn., Montgomery, for permission to construct electric light and power plant.

Ark., El Dorado—See Land Development.

Ark., Leslie—E. T. Stanfield, Home Insurance Bldg., Little Rock, acquired distribution system; is erecting 2 buildings; will install Diesel engines direct connected generators, ice machines, etc.; cost \$24,000; St. Marys Oil Engine Co., St. Charles, Mo., Machy. Contrs.\*

Ark., Lewisville—Arkansas Light and Power Co., Pine Bluff, is clearing right of way for high tension line from Lewisville to Magnolia.

D. C., Washington—Potomac Electric Power Co., 231 Fourteenth St. N. W., applied to Public Service Comsn. to change service in Montgomery County from 25 to 60 cycle; cost \$80,189.\*

Fla., Arcadia—See Land Development.

Fla., Boynton—See Land Development.

Fla., Daytona—See Land Development.

Fla., Daytona Beach—Peninsular Station—See Land Development.

Fla., Lake Worth—See Land Development.

Fla., Miami—See Land Development.

Fla., Miami—North West Seventh Ave. Improvement Assn., 1250 N. W. Seventh Ave., will install white way system on Seventh Ave.

Fla., Ocala—See Land Development.

Fla., Orlando—See Land Development.

Fla., Palatka—See Land Development.

Fla., Panama City—See Land Development.

Fla., San Antonio—See Land Development.

Fla., Sarasota—See Land Development.

Fla., Sarasota—City will probably sell electric light plant to Florida Power and Light Co., 27 N. W. First St., Miami, subject to ratification Jan. 5.

Fla., St. Petersburg—City, R. E. Ludwig, Director of Public Utilities, will extend power and light lines to Bayboro Harbor.

Fla., Tampa—See Land Development.

Ga., Atlanta—Georgia Railway and Power Co., Preston S. Arkwright, Pres., reported to issue \$5,000,000 first preferred stock for improvements and development of hydro-electric properties in North Georgia.

Ga., Bainbridge—Seminole Power Co. reported acquired municipal light and power plant, also acquired plant at Spring Creek; will improve.

Ga., Savannah—See Land Development.

La., Gibsland—See Water Works.

La., Shreveport—See Land Development.

Mo., St. Louis—Board of Public Service receives bids Dec. 15 for installing complete street lighting system in districts B, S and D.

Mo., St. Louis—Street Lighting Construction Co. incorporated; Edward P. Allison, 101 Madison St.

N. C., Beulaville—Tidewater Power Co., Wilmington, reported to have franchise; will construct transmission line.

N. C., Salisbury—Southern Power Co., Charlotte, W. S. Lee, V. P. and Ch. Engr., advises that a new steam station will be located on Yadkin River near Salisbury; work will be done by forces of company and designing by engineering staff; will install two 37,500 kw. steam turbine generating units.\*

Okla., Drumright—Oklahoma Gas & Electric Co., Oklahoma City, has contract for supplying town of Menham with electric lights.

Tenn., Chattanooga—Tennessee Electric Power Co. reported planning expenditure of \$6,000,000 during 1926 for improvements and enlargements; increase facilities at Ridge-dale, Blue Ridge and at Hales' Bar.

Tenn., Jackson—City, Lawrence Taylor, Mayor, is replacing old arc lighting system; cost \$60,000; let contracts to Worthington Pump and Machinery Corp., 701 Laclede Gas Bldg., St. Louis, Mo.; Westinghouse Electric & Manufacturing Co., East Pittsburgh, Pa., for equipment.

Tenn., Murfreesboro—Tennessee Electric Power Co., Chattanooga, reported acquired holdings of Murfreesboro Light and Power Co.

Tenn., Nashville—State Railroad and Public Utilities Comsn. approved purchase by Tennessee Electric Power Co., Chattanooga, of power line at East Ridge, Hamilton County.

Tenn., Nashville—Nashville Railway and Light Co., J. P. W. Brown, V. P. and Gen. Mgr., reported to expend \$1,540,000 for improvements during 1926, including \$100,000 power substation, \$500,000 turbo generator.

Tex., Jourdan—Texas Central Power Co., San Antonio, reported acquired Jourdan Water and Light Co.'s plant.

Tex., Marshall—East Texas Public Service Co. reported to install 66,000 volt line from Big Sandy to Mineola.

Tex., Palestine—City let contract to Texas Power & Light Co., Dallas, Tex., to rebuild downtown white way system and install lighting system.

Virginia—National Public Service Assn., 87 Nassau St., New York, affiliated with A. E. Fitkin & Co. and properties under management of General Engineering and Management Corp., both 165 Broadway, reported acquired all common stock of Virginia Northern Power Co., Warrenton, Va., including plants at Bealeton, Culpeper, Marshall, Orange, Rapidan, Remington, The Plains and Warrenton; plans improvements and extensions.

Va., Amherst—Central Virginia Power Co. will construct power line to Amherst and Nelson counties.

### Flour, Feed and Meal Mills

N. C., Raleigh—Enterprise Feed and Milling Co., capital \$50,000, incorporated; H. W. Ford, 124 E. 54th St., Savannah, Ga.

Okla., Welch—John Schenk and Earl Russell acquired 2 grain elevators from H. B. Campbell.

S. C., Lake City—L. W. Kelley acquired Lake City Rolling Mills; will improve and operate.

### Foundry and Machine Plants

Ala., Anniston—M. and H. Valve Co., J. W. Conway, Pres., Atlanta, Ga., let contract to Ogletree Construction Co., Anniston, at \$70,000, for first unit of plant to manufacture valves for pipe lines, etc.;

work includes 100x390-ft. main building, cupola building, core and cleaning room; brick and steel, concrete foundation, metal sash; acquired 6-acre site at 22d and Railroad St.; has machinery; J. E. Sirrine Co., Archt., Greenville, S. C.\*

Md., Baltimore—Flynn & Emrich Co., Holiday and Saratoga Sts., plans erecting \$50,000 foundry building between Garrett Ave. and Taylor St., 100x260-ft., brick and steel; W. S. Austin, Consit. Engr., Maryland Trust Bldg.

Mo., Kansas City—Iron and Steel Products—Sheffield Steel Corp. chartered; W. L. Allen, Pres., 5502 High Drive.

Mo., St. Louis—Railway Signals—Safety Switch Lever Lock Corp. of America chartered; Harry L. Israel, 5928 Waterman St.

Tex., Corsicana—See Miscellaneous Enterprises.

Tex., Dallas—Automatic Baseball Machinery—Neal Manufacturing Co. incorporated; Joe Aronoff, 2937 Park Row.

Tex., Houston—Emsco Derrick & Equipment Co., J. E. M. Smith, Sec., 7111-A Alameda, Los Angeles, Cal., advises. "Will erect \$250,000 plant first part of 1926; site not yet acquired."\*

### Gas and Oil Enterprises

Ala., Huntsville—Huntsville Gas Co.'s properties reported acquired by Federated Utilities Co., Inc., Battle Creek, Mich., extend and develop.

Ark., El Dorado—Standard Drilling Co., capital \$25,000, incorporated; Earl Derr, C. F. Smith.

Fla., Clearwater—City Comms. will probably install gas storage tank, capacity 50,000 cu. ft., cost \$11,500.

La., Donaldsonville—Thibaut Oil Co. incorporated; Dubourge Thibaut, Bronier Thibaut.

La., Haynesville—King Oil Co., capital \$15,000, incorporated; W. B. King, J. C. Davis.

La., Shreveport—Merchants Oil Co., capital \$10,000, incorporated; John Hude, 508 Kirby St., Shreveport.

Mo., Kansas City—Satin Oil Co. incorporated; Chas. P. Hinson, 4033 Kenwood St.

N. C., Greensboro—North Carolina Public Service Co., K. K. Garrett, Gen. Mgr., 118 N. Elm St., is constructing high pressure gas main to augment present low pressure service in outlying districts; material purchased.\*

Okla., Ponca City—Boucher-Sutphin Oil and Gas Co. incorporated; W. H. Boucher, Ponca City; J. S. Jarvis, Enid.

Okla., Texhoma—John E. Hosack, Blackwell, will probably receive gas franchise.

Okla., Tulsa—White Hawk Oil Co., capital \$20,000, incorporated; Joe McConnell, John J. Southwick, Jr.

Okla., Tulsa—Burwood Oil Co., capital \$10,000, incorporated; Chas. Schwartz, Mayo Bldg.

Tenn., Paris—Paris Oil Co. will rebuild burned storage plant.

Tex., Amarillo—Native Oil Co., capital \$96,000, incorporated; J. R. Cullum, R. L. McSpadden.

Tex., Corpus Christi—W. L. Pearson & Co., P. O. Box 176, McAllen, has contract for laying 2500 ft. of gas and water pipe for city.

Tex., Dallas—Shareholders of Magnolia Petroleum Co., Magnolia Bldg., voted to merge with Standard Oil Co. of New York.\*

Tex., Honey Grove—Honey Grove Oil and Gas Co. incorporated; D. E. Rowton, J. W. Jones.

Tex., Houston—Ross Oil Co., capital \$10,000, incorporated; B. C. Ross, 1617 Hardy St.

Tex., Houston—Pasadena Petroleum Warehouse Co. incorporated; W. S. Cochran, 4004 Brandt St.

Tex., Houston—Alamo Royalties Corp., capital \$24,000, incorporated; Adrian Moore, 612 Branard St.

Tex., Houston—Houston Natural Gas Co., incorporated by L. S. Zimmerman, Maryland Trust Bldg., Baltimore, Md.; E. H. Buckner, Scanlan Bldg., Houston; supply natural gas to Houston; pipe line being completed.

Tex., Pampa—Pampa Gas Co., capital \$50,000, incorporated; J. A. Robertson, W. L. Woodward.

Tex., San Antonio—Salado Oil Co., capital \$40,000, incorporated; John Bennett, 319 St. Mary's St.

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## Ice and Cold-Storage Plants

Fla., Clearwater—See Fla., St. Petersburg.

Fla., Largo—See Fla., St. Petersburg.

Fla., Miami—Rene Sils Corp. of Florida reported acquired site on Flagler St. at Grapeland; will erect temporary cold storage building, estimated cost \$100,000.

Fla., St. Petersburg—Pinellas Ice & Cold Storage Co., Tenth St. and Second Ave., let contract to Arctic Ice Machine Co., Canton, Ohio, to equip 56 ton capacity plants at Thirtieth Ave. and Seventh St. and at Twenty-third and Tangerine Sts.; also plants at Largo, Clearwater and Tarpon Springs; acquired plants of the Crystal Ice Co., 908 Fifth Ave. N.\*

Fla., Tampa—Consumers Ice Co., J. W. Chandler, Mgr., Polk and Marion Sts., erecting \$30,000 ice plant, 100x150-ft., brick and concrete, concrete floors, gravel roof, install complete ice making equipment, daily output 60 tons; machinery furnished by Arctic Ice Machine Co., Canton, Ohio.\*

Fla., Tampa—Crystal Ice & Cold Storage Co., Ruby and Maryland Ave., will erect 35-ton capacity raw water ice plant; machinery installed by York Manufacturing Co., York, Pa.; A. B. Hall, Archt., Tampa.\*

Fla., Tampa—Tampa Arctic Ice Co., Inc., R. A. Buford, Jr., Pres., Bruen & Webb Bldg., will erect \$45,000 ice plant; structural steel and concrete block, 2-story, 103x95 ft.; install \$110,000 equipment, including electrical, refrigerating and freezing equipment; daily output 120 tons; refrigerating equipment furnished by Frick Co., Waynesboro, Pa. (See Machinery Wanted—Conveyors; Cranes (Motor); Building Materials; Ice Plant Equipment).\*

Fla., Tarpon Springs—See Fla., St. Petersburg.

La., Alexandria—Alexandria Ice and Cold Storage Co., Edwin Harding, Pres. and Gen. Mgr., will erect additional ice plant, daily capacity 125 tons; also make improvements to two plants now in operation; estimated cost \$250,000; Geo. E. Wells, Consult. Engr., Security Bldg., St. Louis, Mo.

Okla., Elk City—Elk City Ice Co., capital \$100,000, incorporated; C. S. Hunt, Elk City; C. F. Anderson, 1122 W. 13th St., Oklahoma City.

Okla., Hennessey—Hennessey Ice Co., capital \$25,000, incorporated; J. H. Hill, C. F. Key, both Enid.

Tex., Colorado—Dillingham & Alexander, Breckenridge, reported will erect \$70,000 ice and cold storage plant, brick and reinforced concrete, daily output 30 tons; site purchased.

Tex., Corpus Christi—Texas Central Power Co., Frost Bldg., San Antonio, let contract to Sumner-Sollitt Co., National Bank of Commerce Bldg., San Antonio, for \$25,000 addition, 32x100 ft., brick and steel, corrugated asbestos roof, install \$75,000 equipment, daily output 50 tons ice; machinery furnished by York Products Corp., 2211 Texas Ave., Houston.\*

Tex., Greenville—See Miscellaneous Enterprises.

Tex., Greenville—W. R. Ragsdale, Archt., 301 Beckham Bldg., revising plans for abattoir and cold storage plant, 1 story, reinforced concrete.

Tex., Houston—National Terminals Co., Indianapolis, Ind., reported establish and operate \$3,000,000 freight and cold storage warehouse; site not selected; A. A. Mudge, 1117 Walker St., interested.

## Iron and Steel Plants

Fla., Clewiston—Clewiston Iron Co. organized by Major R. L. Lusk, erecting structural steel plant in Hendry County, capacity 2000 tons of fabricated structural steel per month; plant installed in connection with industrial development of Clewiston, which is fostered by Clewiston Limited; will be ready for operation by Jan. 1, 1926; will operate freight and passenger ferry service across lake, giving direct shipments by truck, either to Palm Beach, Miami, or vicinity.

## Land Development

Ark., Fort Smith—S. Felton acquired 720 acres; develop orchard.

Ark., El Dorado—Country Club Colony Corp., capital \$10,000, incorporated; J. B. Sowell, Joe Zeppa; develop 50-acre subdivision; install water, sewers, roads, electric lights.

Florida—William Candler, Pres., Candler Lumber Co., Candler Bldg., Atlanta, Ga., wires: "In 1920 we purchased present holdings in Polk and Osceola Counties, Fla.

Since that time have been removing certain of timber and are now preparing plans and specifications for utilization of greater part of holdings in most unique and comprehensive manner. These plans we do not feel wise in making public at this time because they are not in complete form or worked out just as we hope to work them out. Will advise at some later date fully just what these plans and specifications will be."

Fla., Arcadia—Clifford Country Estates, 565 Fifth Ave., New York, will develop 140-acre subdivision; install water, sewers, electric lights, roads.

Fla., Arcadia—E. H. Simons, Lakeland, has charge of development of subdivision for Melton Rodgers Co.; will install water, sewers, electric lights, roads.

Fla., Arcadia—Bixler & Moore, Harrington Bldg., are developing Arcadia Hy-Lands; construct hard surfaced streets.

Fla., Avon Park—W. C. Malin, J. C. H. Realty Co., 116 N. E. Second Ave., Miami, are developing 720-acre subdivision.

Fla., Avon Park—Rex Beach, Ardsley-on-Hudson, N. Y., reported acquired 120 acres in Highland County; will develop.

Fla., Boynton—Ridgewood Development Corp. will develop subdivision; install water, sewers, electric lights.

Fla., Boynton—Perkins Development Co. is developing Bellemey Heights subdivision; install water, sewers, sidewalks, electric lights, 50-ft. streets.

Fla., Daytona Beach, Peninsular Station—Harry Pepper Co., 104 N. Beach St., will develop 140-acre subdivision on Dixie Highway; install water, sewer, streets, sidewalks and electric lights.

Fla., Daytona Beach—Isaac K. Lippincott, Pres., Salem County Trust Co., Woodstown, N. J.; A. C. Rutherford, Scranton Real Estate Co., Scranton, Pa., local office 250 First Ave., Daytona Beach, reported acquired 11,000 acres between Orange City and Lake Helen; develop subdivision; construct hard-surfaced streets, ornamental entrance gates; electric lights, water, sewers.

Fla., Fort Meade—Tripp, Singletary & Wilson Realty Co., First State Bank, Incorporated; A. E. Tripp, Miami; Geo. Singletary.

Fla., Fort Myers—George von Polenz, 115 Broadway, New York, reported, acquired for client townsite of Marco on Marco Island; will develop; let contract to Major T. J. Whelan of Whelan Engineering Co., New York, for dredging, filling and construction of docks and seawalls.

Fla., Frostproof—R. J. Brewton, Sebring, will develop 44-acre subdivision; install water, sewers, electric lights, roads.

Fla., Key West—Arthur Gomez let contract for improvement of tract at Stock Island; will fill, grade, extend 200 ft. into water, build streets and sidewalks.

Fla., Lake Worth—Wm. G. Tegmeir, 6435 S. Halsted St., Chicago, Ill., will develop Westwood subdivision; install water, sewers, streets, electric lights; T. D. Auble Co., Agts.

Fla., Manatee—S. A. Parks, Inc., Miami, acquired 10 acres; will develop.

Fla., Miami—H. O. Troendle, Pres. of Atlantic Mutual Realty Co. and New Jersey Warehousing Co., Newark, N. J., developing subdivision near Upton.

Fla., Miami—Tamiami Square Development Co., 250 Halcyon Arcade, acquired 10 acres on Ludlum Rd.; develop subdivision.

Fla., Miami—Palm Beach Shores, Inc., acquired 100-acre tract; develop subdivision.

Fla., Miami—Rock Park Development Corp., Florida Resales Exchange, Halcyon Hotel Bldg., M. W. McConnell, Pres., reported acquired properties of Titusville Beach Estates and De Soto Beach Development Co.; develop resort and recreational city; install paved streets, boulevards, 20-ft. boardwalk, water, sewers, electric lights.

Fla., Miami—Normandy Beach Properties, Inc., 201 E. Flagler St., is having waterways installed by Clark Dredging Co. at Normandy Isles subdivision; will grade boulevards and install other improvements; expend \$2,000,000; A. R. Walker, Gen. Sales Mgr.

Fla., Miami—Linford H. and Jay C. Upton, 434 S. W. Tenth Ave., developing townsite of Upton; install water, sewers, roads, streets, parks, electric lighting.

Fla., Miami—Walton County Farms, Inc., I. Levin, Pres., 72 N. E. Third St., will develop 9260 acres for farms; Hal C. Richardson, DeFuniak Springs, Engr.\*

Fla., Miami—Irons Holding Co., 151 E.

Flagler St., V. Earl Irons, Pres., acquired 295 acres, develop as Section A Irons Manor; Irons Land & Development Co., 151 E. Flagler St., has been designated to develop tract; construct two 110-ft. park drives, 40-ft. parkway, fountains, 80-ft. boulevard; oiled paved streets, sidewalks, electric lights, water.\*

Fla., Miami—Bellerose Realty Co., Chas. R. Sykes, V. P., 204 S. E. First Ave., H. Potamkin, Pres., 1715 Chestnut St., Phila., Pa., will develop 50 acres for subdivision; install streets, curbs, sidewalks, light, water, landscaping, fountain, cost \$175,000; Martin & Orr, Archt. and Const. Engrs., Townley Bldg.; E. L. Gehry, Landscape Archt., 2324 N. W. Fifth Ave.

Fla., Miami—Miller-Camplin Co., 1312 N. E. Second Ave., will develop 640-acre subdivision.

Fla., Miami—Essee Realty Corp. acquired 5000 acres; develop subdivision.

Fla., Miami—A. V. Jackson and Clyde Leesley, 6100 N. Crawford Ave., Chicago, Ill., will develop 60 acres.

Fla., Mount Dora—Walter S. Darden, 725 First National Bank Bldg., Detroit, Mich., Pres. Detroit and Florida Highlands, Inc., reported to develop Deer Island; construct yacht basin, paved streets, erect hotel.

Fla., New Smyrna—Jack Horner will develop Sheldon City, subdivision of 164 acres.

Fla., Ocala—Bryant, Barco & Cobb are developing Druid Hills subdivision; will install water, sewers, gas, electric lights, streets; Robert Moorehead, Civil Engr.

Fla., Ocala—Ocala Development Co., Otis Green, V. P., will develop Marimere subdivision, 67 acres; Scott Construction Co. has contract for streets; will install sidewalks, electric lights, parks; Harwood Beebe Co., Engrs.

Fla., Okeechobee—S. V. Theodore, New York, and G. K. Bossom, Miami, will develop farm colony.

Fla., Orlando—Frank E. Lott Enterprises, Inc., acquired 17,000 acres near Davenport; develop Lake Louise Estates subdivision; install water, sewers, electric lights, roads.

Fla., Orlando—Kay Anderson and Jas. Davidson Co., 52 E. Pine St., will develop 48-acre subdivision.

Fla., Orlando—Griffin-Anable Co. acquired 1140 acres in Seminole County.

Fla., Orlando—Orlando Development Corp., 222 N. Orange Ave., incorporated, with \$1,260,000 capital; Geo. M. Petty, Pres.; develop 5000-acre tract for colonization and poultry farm; construct poultry houses, as individual poultry unit, install streets, highway, lakes, parks, electric lights, septic sewer tanks, water works.

Fla., Palatka—St. John's Properties, Inc., S. L. Gaines, Gen. Mgr., is developing St. John's Manor subdivision; will install water, sewers, electric lights, streets.

Fla., Panama City—City Builders, Inc., will soon install water plant, sewers, roads and lights in Youngstown development.

Fla., Punta Gorda—J. W. Robinson, Resident Mgr. of J. C. H. Realty Co., 116 N. E. Second Ave., Miami, reported to fill in and develop 180 acres in Charlotte Bay; construct 80-ft. boulevard, white way, yacht basin, city park with bandstand, children's playground; Stiles & Van Kleek, 97-A Newbury St., Boston, Mass., Landscape Engrs.

Fla., San Antonio—Gilespie, McShea & Koon, Tampa, are developing Pine View subdivision; construct ornamental gateway, dredge lake, install water, sewers, electric lights, streets.

Fla., San Antonio—Joe Connors, editor of San Antonio Floridian, is developing Santone Heights; will install lights, erect tower and surface streets.

Fla., Sarasota—S. K. Foster and J. R. Matthews, 210 Central Ave., develop 160 acres on Fruitville Road for subdivision.

Fla., Sarasota—L. C. Townsend will develop 160-acre subdivision; install sidewalks, water, streets, drainage.\*

Fla., Sarasota—Blaine H. Vlier, 200 Pineapple Ave., will develop 80 acres of land for subdivision; construct 4 1/4 miles asphalt streets, cost \$114,000; 4 1/2 miles sidewalks, \$22,500; lights and wiring, \$10,000; water and piping, \$5000; drainage and sewerage, \$5000; Lee's Statue, \$5000; landscaping and shrubs, \$10,000; electric line, hooking up, \$2000; Richetts & Howarth, Contrs., Pineapple Ave.; Cantry & Lydell, Constr. Engrs., Main St.; M. Brundage, Landscape Archt.\* (See Machinery Wanted—Electric Wiring; Water System; Ice Plant.)

Fla., Sebring—George E. Sebring, Sr., Dr. E. E. Bratton, 416 S. 41st St., Philadelphia,

In writing to parties mentioned in this department it will be of advantage to all concerned if the Manufacturers Record is mentioned.



Pa., reported interested in developing 200-acre subdivision.

Fla., St. Petersburg—Charles S. Powell, 5305 Central Ave.; Randolph E. Decker developing Mount Washington subdivision.

Fla., San Antonio—Lester Sistler acquired 100 acres; develop subdivision.

Fla., St. Petersburg—Murok Realty Corp., Florida Arcade, will develop 150 acres at Pinellas Point for home sites; construct 9 miles seawall.

Fla., Tampa—Charles O. Goss, Edward S. Judd, Axel Lonnquist, Conway Bldg., 111 Washington St., Chicago, Ill., have acquired holdings of Tampa Lakes and Country Club and plan development; Ben Marshall, 200 E. Walton Place, Chicago, is preparing plans for combination hotel and golf club; Wm. Diddel, Indianapolis, Ind., will lay out 2 golf courses; construct Spanish village, with shops to be leased to tenants, riding academy with bridle paths, lakes, polo fields and combination aviation and hydroplane landing.

Fla., Tampa—W. L. McNevin of W. L. McNevin & Co., 505 Tampa St., are developing Baisden Shores subdivision; 357 acres at Gadsden Point; install water, sewers, roads, sidewalks, electric lights; boat channel 45 ft. wide; club building; 18-hole golf course, Donald Ross, Landscape Archt., Pinehurst, N. C.

Fla., Tampa—Insured Land Corp., A. A. Tano, V.-P., reported acquired tract in Hardee County; will develop.

Fla., Tampa—J. S. Ackerman, 2107 Watrous Ave., reported to develop 36,000-acre tract for colonization.

Fla., Tarpon Springs—Fred Crossett will develop tract on Lime and Lake Sts.

Fla., Tarpon Springs—Bartoo Realty Co., incorporated; H. J. Bartoo, H. Blaine Peacock; develop Peacock Manor subdivision.

Fla., West Palm Beach—Florida Georgia Home & Investment Co., L. E. McWilliams, Pres., Quincy, reported to develop 5000 acres for colonization.

Fla., West Palm Beach—Edgar H. Stapper, West Palm Beach, and B. L. Cumber, New York, reported interested in development of 14,000 acres land on Florida East Coast with ocean frontage of 4½ miles.

Fla., West Palm Beach—Northwood Investment Co. will develop 140-acre subdivision.

Fla., Winter Garden—John J. Watson, Landscape Archt., Toledo, Ohio, and 657 Fourth St. N., St. Petersburg, is developing 300 acres for residential community with civic center, recreational parks and boulevards for L. W. Tilden and M. J. McMillan.

Fla., Winter Haven—E. F. Tarbell, George C. Ripley reported to develop 27 acres on Lake Eloise for subdivision.

Ga., Brunswick—R. E. Benedict of Benedict & Rue, Southern Bldg., Washington, D. C., acquired Blythe Island, 2600 acres.

Ga., Cloudland—Laurel Park Improvement Co., capital \$25,000, incorporated; Allison W. Ledbetter, Jr., O. C. Green.

Ga., Ludowici—Coastal Highway Land Corp., Savannah, reported acquired 12,600 acres land; will develop.

Ga., Macon—Murphy, Taylor & Ellis, 470 Cherry St., let contract to E. W. Campbell for grubbing and heavy grading for development of Stanislaus subdivision, cor. Pio Nona and Vineville Aves.; J. L. Hoffman & Co., 415 W. Ponce de Leon Blvd., Atlanta, Landscape Archts.; E. L. Gostin, Washington Block, Macon, Engr.; will install paved streets, sidewalks, gas, sewer, water mains, shrubbery (See Machinery Wanted—Paving; Sidewalks; Sewers; Shrubbery).

Ga., Marshallville—Eugene Bryan, Haines City, Fla., acquired 200-acre tract.

Ga., Savannah—Coastal Highway Land Corp., capital \$50,000, incorporated; George S. Clarke, E. 47th St.; Frank M. Papy, 303 44th St. E., acquired lands in Bryan Co. owned by Belfast Timber Co.

Ga., Savannah—Mrs. Callie M. Joseph will develop subdivision on Thirty-Sixth St.; install water, sewers, road, electric lights.

Ga., Savannah—DeSoto Development Co., capital \$20,000, incorporated; W. W. Douglas, Commercial Bank Bldg.

Ga., Savannah—F. A. Von Eberstein, 130 E. 44th St., will develop 150 acre subdivision on Vernon River, construct dock, park, install water, sewers, electric lights, streets.

Ga., Savannah—Lorimer Realty Co. will develop 56-acre subdivision.

Ga., Valdosta—Roberts Estate, Inc., capi-

tal \$100,000, incorporated; W. L. Roberts, J. Y. Roberts.

Ga., Valdosta—Valdosta Development Co., capital \$100,000, incorporated; A. L. Davis, C. C. Taylor.

La., Baton Rouge—Island City Developments, capital \$50,000, incorporated. Richard B. Means, Olive W. Kernan.

La., Baton Rouge—Baker Real Estate & Development Co., capital \$10,000, incorporated; Dr. W. H. Pipes, Raymond Bldg.

La., Morgan City—Billiot's Shell Island, Inc., capital \$24,000, incorporated; Dr. Chas. DeGravelles, Joseph L. Fisher.

La., New Orleans—Johness Realty and Securities Co., 816 Perdido St., will develop 704-acre subdivision.

La., New Orleans—Bonfouca Land Co., Inc., capital \$150,000, incorporated; J. Blanc Monroe, 1424 Louisiana Ave.

La., New Orleans—Upstream Realty Co., Inc., capital \$30,000, incorporated; Albert L. Vitter, Louisiana Bldg.

La., New Orleans—Lake-to-River Land Co., capital \$400,000, incorporated; Ernest W. Jones, 2436 Broadway.

La., Shreveport—Lester Wilson, 347 Lustre St., and R. L. Gascon, 920 Giddens Lane Bldg., will develop 900-acre subdivision; will construct roads, streets, install water, sewers, electric lights.

Md., Baltimore—Lynchpoint Land Co., 430 Hearst Tower Bldg., G. M. Stengel, Pres., acquired 105 acres with frontage on Back River; will develop.

Md., Baltimore—T. L. Webb Homes Corp., 3621 E. Lombard St., capital \$90,000, incorporated; Thomas L. Webb.

Md., Baltimore—Park Island Development Co., 443 Calvert Bld., incorporated; Wm. E. Smith.

Md., Baltimore—T. Bayard Williams, 806 Citizens Bank Bldg., Atty. for Hinchingham Land Co., Inc., reported acquired 200 acres land on Chesapeake Bay near Tolchester; will develop.

Md., Baltimore—Point Lookout, Inc., 1503 Fidelity Bldg., incorporated; Harry E. Karr, Thomas E. Barrett, Jr.

Md., Baltimore—Pennington Realty Co., 563 Calvert Bldg., capital \$100,000, incorporated; Herman Seidel, Morris S. Snyder.

Md., Salisbury—Glen Haven Development Co. will develop subdivision.

Miss., Gulfport—George S. Forbes, 305 S. La Salle St., Chicago, Ill., and associates acquired 11,000 acres land; develop for colonization.

Miss., Biloxi—Chicago Realty Co., capital \$10,000, incorporated; George S. Forbes, 305 S. La Salle St., Chicago, Ill.

Miss., Hattiesburg—C. F. Pittman acquired 60-acre peach orchard.

Mo., Kansas City—Realty Assets Corp., capital \$25,000, incorporated; Mike Brady, 138 Linwood Ave.

Mo., Springfield—J. W. Fly, Pioneer Summer Resort Assn., will develop summer resort.

Mo., St. Louis—J. I. Epstein & Son, 617 Chestnut St., will develop subdivision; Pitzman Surveying Co., Engrs.

Mo., St. Louis—Suburban Realty Co., incorporated; D. Hayes McLaughlin, National Bank Commerce Bldg.

Mo., St. Louis—Pyramid Co., capital \$10,000, incorporated; Frank D. John, 5078 Manchester Ave.

Mo., St. Louis—Holland Building & Investment Co. incorporated; Oron E. Scott, 5211 Westminster St.

Mo., St. Louis—Guth Realty Co. incorporated; John H. Guth, 1289a Hamilton St.

Mo., St. Louis—Holland Corp., incorporated; O. E. Scott, 800 Chestnut St.

Mo., St. Louis—Rock Ridge Land Co., capital \$10,000, incorporated; Edward H. Simmons, Clayton and Hankey Sts.

N. C., Asheville—Great Smoky Mountains, Inc., incorporated; Charles A. Webb, Citizens Bldg.

N. C., Asheville—Weaver Lake Co., Richmond, Va., acquired tract on Weaverville Highway; will develop.

N. C., Asheville—Barnes-Watkins Co., capital \$10,000, incorporated; J. A. Watkins, 11 Brevard Rd.

N. C., Asheville—Carolina Realty & Building Corp., capital \$50,000 incorporated; Harry W. Gordon, R. H. Norris.

N. C., Elizabeth City—Elizabeth City Coun-

try Club will probably issue \$20,000 bonds for improvements, including pier into Pasquotank River, extension of golf course, road work, etc.

N. C., Franklin—Mountain Lakes Estates, capital \$200,000, incorporated; O. L. Taylor, 1343 Highland Ave., Atlanta, Ga.; Alvah Pearce, Franklin.

N. C., Hendersonville—Aronocar Investments, Inc., capital \$125,000, incorporated; A. Aronovitz, Townley Bldg., Miami, Fla.

N. C., Morganton—Ira C. Triplett, Independence Bldg., and C. L. Etheredge, 415 W. 4th St., Charlotte, reported having option on 26,000 acres mountain land near Bynum's Bluff.

N. C., Winston-Salem—Fogle Investment Co., capital \$500,000, incorporated; H. A. Pfohl, 117 Belews Creek Rd.

Okla., Pauls Valley—Oklahoma Pecan Co., capital \$30,000, incorporated; R. C. Kennedy, Pauls Valley; M. W. Hawkins, Granite.

Okla., Tulsa—Julius and J. K. Livingston are developing Forest Park subdivision, 4000-acre tract; install playground, 18-hole golf course.

S. C., Charleston—Security Holding Co. incorporated; John P. Rugheimer, 37 Montague St.

S. C., Columbia—Palmetto Realty and Investment Co., capital \$15,000, incorporated; Harry G. Kaminer, 303 Saluda Ave.

S. C., Timmonsville—Wilkes Farms, Inc., chartered; C. Ray Smith, Jas. L. Wilkes.

Tex., Catarina—C. F. C. Ladd, 150 Union Station, Kansas City, Mo., has plans for developing 100,000 acres; install water, sewers, roads.

Tex., Corsicana—City will expend \$50,000 for sewers and \$20,000 for parks. See Financial News—Bond Issues Proposed.

Tex., Eagle Ford—Eagle Ford Land & Industrial Co., J. L. Lancaster, Pres., 3645 Beverly Drive, Dallas, acquired for industrial development 216 acres 5 miles west of Dallas.

Tex., Fort Worth—City voted park, sewer and water bonds. See Financial News—Bond Issues Proposed.

Tex., Houston—Seaside Realty Co., capital \$30,000, incorporated; C. A. Barbour, 602 First Natl. Bank Bldg.

Tex., Houston—Dr. J. F. Usener, 4204 La Branch St., will develop 30-acre subdivision.

Tex., San Antonio—F. L. Grayson, Pres. Grayburg Oil Co., Maverick Bldg., reported acquired 275 acres in S. San Antonio; develop subdivision.

Va., Falls Church—McPherson Square Corp., incorporated; Charles H. Tompkins, 1612 Park Rd., Washington, D. C.

### Lumber Enterprises

Florida—See Land Development.

Fla., Leesburg—Lake County Supply Co. has been acquired by H. A. Jackson, L. M. Carter and associates of Valdosta, Ga.; continue existing business; operate lumber mills, etc.

Fla., Tampa—Flamova Lumber Co., capital \$50,000, incorporated; Roscoe DeHaven, Lutz.

Ky., Bowling Green—Harris Lumber Co., organized by P. & Nat Harrid, acquired the J. N. Russell Lumber Co.'s plant.

Ky., Smalley—Home Builders Lumber & Supply Co., capital \$15,000, incorporated; R. L. Bailey, John Olson.

La., Baton Rouge—Suburban Lumber Co., Inc., capital \$25,000, chartered; John T. Laycock, Triad Bldg.

Miss., Camden—National Lumber Co., capital \$25,000, incorporated; R. L. Curtis, F. A. Jones.

Miss., Meridian—Hart-Moore-Marshall Co., capital \$100,000, incorporated; J. L. Hart, G. N. Moore.

Mo., Huntsville—Edwards & Phipps Lumber Co., capital \$10,000, incorporated; C. L. Edwards, S. E. Phipps.

N. C., Charlotte—I. C. Triplett, Independence Bldg., and C. Lane Etheredge, 1017 Queens Rd., reported, acquired 32,000 acres timber land in Burke County; will develop.

Tenn., Martin—C. H. Brundige acquired the Hicks Lumber Co.; will operate.

Tex., Houston—Lake Creek Lumber Co., capital \$10,000, incorporated; Morris Meyer, First National Bank Bldg.

W. Va., Nolan—Mingo Logging Co., capital \$25,000, incorporated; Bill Little, Webb, W. Va.; Sam Frazier, Louisa, Ky.

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### Metal-Working Plants

Mo., St. Louis—Hicks Retinning & Manufacturing Co., capital \$15,000, incorporated; Samuel H. Hicks, 528 Greeley St.

Tenn., Chattanooga—Chattanooga Stamping & Enameling Co., Manker Patten, Pres., increased capital, \$200,000 to \$300,000.\*

Tex., Wichita Falls—Ray Sheet Metal Works, capital \$80,000, incorporated; Nat. L. Inge, 1206 Scott St.

### Mining

Md., Baltimore—East Picher Zinc Co., Title Bldg., incorporated; Albert A. Hall.

Miss., Hattiesburg—American Sand and Gravel Co., capital \$25,000, incorporated; M. H. Cox, S. O. Trest.

Mo., Fredericktown—Little Flower Mining Co., incorporated; T. J. Mateer, C. P. Dameron.

N. C., Star—Sandhill Sand Co. (Talbird Siding), T. J. Ellis, Sec., has 10-acre development, daily output 10 cars sand; will install 2 belt conveyors with gasoline engines. (See Machinery Wanted—Conveyors.)

Tex., Houston—The Micolithic Co. propose erecting at Collado Station, in Culberson and Hudspeth Counties, 12 car daily capacity crushing plant to handle micaceous rock from quarry to 1/16 inch mesh; also propose laying 5 1/2 mi. railroad from the S. P. at Collado to the properties, equip with locomotive and caboose; install aerial trams; also erect mica grinding mill, 200 ton capacity, with additional equipment to handle 100 tons daily of micaceous potash feldspar and roasting and grinding mill with grinding capacity 50 tons daily for preparation of paint pigments. Address machinery and material supplies proposals to Thomas J. McCabe, Cotton Exchange Bldg.

W. Va., Williamson—Grey Eagle Mining Co., chartered; Randolph Rals, Ira J. Partlow.

### Miscellaneous Construction

Ala., Dadeville—Fill. See Bridges, Culverts, Viaducts.

Fla., Bradenton—Pier, etc.—City plans waterfront improvements, including municipal pier with necessary buildings, yacht basin, etc. Address City Clk. See Financial News—Bond Issues Proposed.

Fla., Clearwater—Incinerator—Dr. L. M. Coulter, Dist. Health Officer, interested in building incinerator.

Fla., Fort Myers—Seawalls. See Land Development.

Fla., Fort Pierce—Inlet—St. Lucie County Commrs. contemplate \$500,000 bond issue for deepening and maintaining Fort Pierce inlet connecting Indian River with the Atlantic Ocean.

Fla., Jacksonville—City let contract to Decatur Cornice & Roofing Co., Decatur, Ala., at \$65,000, for 1-story metal warehouse at municipal docks, near Talleyrand Ave.

Fla., Key West—See Land Development.

Fla., Mount Dora—Yacht Basin. See Land Development.

Fla., Punta Gorda—Wharf—City Council plans building wharf, warehouse and paved approach; docks wide enough to allow trains to load and unload at ship's side.

Fla., Sanford—Seminole County Commrs. let contract to Frank W. Cox of the Ribault Development Co. for hydraulic fill for Seminole Blvd., extending from city limits to Monroe bridge.

Fla., St. Petersburg—Pier, etc.—City will construct additional pier 150 ft. wide, 1000 ft. long, with slip extending from present dock at an angle of 45 degrees; dredge entire turning basin and entrance channel to 27 ft.; construct additional warehouse facilities on dock; estimated cost \$1,425,000; J. P. O'Connor, Director of Public Relations. See Financial News—Bond Issues Proposed.

Fla., St. Petersburg—Seawall. See Land Development.

Fla., Sarasota—Pier—Bacheller & Brewer Corp. let contract to A. D. Keiger & Co. for concrete pier in Hudson Bayou, 600 ft. long, plans call for both road and walkways on pier; Clas, Shepherd & Clas, Archts., 415 Milwaukee St., Milwaukee and Sarasota.

Fla., Tampa—Channel. See Land Development.

Fla., Winter Garden—Pier—Winter Garden Developing Co., Inc., reported, plans building concrete pier in Lake Apopka, fronting Winter Garden shores.

Ga., Augusta—Channel—City Council in-

terested in deepening channel, also providing facilities for handling 125,000 tons freight annually; Maj. Dan I. Sultan, Dist. Engr.

Ga., Savannah—Docks—See Land Development.

La., Lake Charles—Wharves—City having plans and specifications made for docks and wharves; open bids about Dec. 1; E. J. Novak, Mgr. Assn. of Commerce; Elmer Schutts, Engr.\*

La., New Orleans—Levee—Orleans Levee Board let contract to Grasser Contracting Co., Canal-Commercial Bldg., at \$61,702 to construct commercial type levee along Third Dist. section of river between Marigny and Clouet Sts.

N. C., Elizabeth City—Pier—See Land Development.

S. C., Charleston—Fill. See Bridges, Culverts, Viaducts.

S. C., Charleston—Pier—Clyde Steamship Co., H. H. Raymond, Pres.-Gen. Mgr., Pier 36 North River, New York, advises: Have under consideration construction of another pier; plans not yet completed and not likely to be until some time in early spring.

Tex., Brownsville—Levee—State Reclamation Dept., Austin, Tex., making surveys to construct approximately 150 mi. levee along Rio Grande River, from Brownsville to Mission; reclaim lands and flood reclamation; estimated cost \$3,000,000.

Tex., Childress—Swimming Pool—Montgomery & Ward, Engrs., Asherton, Tex., making surveys and plans for swimming pool, 50x105 ft., reinforced concrete; estimated cost \$60,000.

Tex., Port Arthur—City, O. M. Bower, Mayor, let contract to Spence & Howe Construction Co., Shepherd Bldg., at \$65,590 for drive piling for retaining wall to protect municipal pier and for intake suction and discharge bays at pumping plant; O. M. Bower, City Engr.\*

Tex., Fort Worth—Incinerators—City voted \$71,000 bonds for new incinerators. Address City Manager Carr.\*

Tex., San Antonio—Swimming Pool—Alamo Country Club, Fredericksburg Rd., having plans made for \$35,000 swimming pool; reinforced concrete.

Va., Portsmouth—Dept. of Commerce, Lighthouse Service, H. D. King, Supt. of Lighthouses, Fifth Dist., Baltimore, Md., acquired from Seaboard Wharf & Warehouse Co., Inc., First St. property, north of present depot, including about 3 acres land with marginal wharf furnishing 800 ft. additional for docking space, warehouse with 57,500 sq. ft.; will expend about \$63,300 on repairing, widen slip to 75 ft., dredge to 16 ft., replace old marginal wharf with cap-type open wharf, reinforced concrete docking; repair warehouse, build concrete roads, etc.

### Miscellaneous Enterprises

Ala., Birmingham—Pure Milk Co., T. H. Hanson, 2410 Ave. G. let contract to M. C. Banks, 2501 First Ave. N., for plant, install \$30,000 machinery, part of which is furnished by Standard Milk Machinery Co.; Charles H. McCauley, Archt., Jackson Bldg.

Ala., Gadsden—Crossfield Ice Cream Co. acquired adjoining property; will erect 30x50-ft. addition, increasing capacity.

Ala., Mobile—Steamship Line—Lake Gilt-edge Steamship Co., Inc., capital \$50,000, incorporated; S. A. LeBlanc, 1951 Government St.

Ala., Montgomery—Montgomery Dairy Products Co. let contract to Huggar Bros. Construction Co., Highland Bldg., at \$65,590 for plant; preliminary work, including grading, building spur track, etc., begun.

Ark., Little Rock—Home State Film Co., capital \$30,000, incorporated; Jack K. Adams, 224 Johnson St.

Ark., Newport—Terry Dairy Co., capital \$50,000, incorporated; H. T. Terry, S. S. Summerfield.

Ark., Siloam Springs—Forest Turner acquired site; will establish dairy farm.

Ark., Searcy—Searcy Steam Laundry, Lee Ragsdale, Owner, will rebuild burned plant.

Ark., South Fort Smith—American Syrup & Sorghum Co., incorporated; C. H. Lorenz, Allen T. West.

Fla., Bradenton—Otis Green, 2473 Queenston Rd., Cleveland, Ohio, reported establish laundry.

Fla., Crystal River—Crystal River Publishing Co., John Kilgore, Pres., let contract to Miller & Wilson, Crystal River, for 30x60-ft. building, stucco and metal lath, cement floors, built-up asphalt roof; install \$10,000

printing equipment, furnished by Mergenthaler Linotype Co., 29 Ryerson St., Brooklyn, N. Y.; American Type Founders Co., Atlanta, Ga.\*

Fla., Daytona Beach—Daytona Beach News, T. E. Fitzgerald, publisher, advises: "Will begin erection early next spring of 3-story steel and concrete building on Silver Beach Ave., approximate cost \$75,000; Frank D. Gheen, Archt.\*"

Fla., Eau Gallie—City will establish steamship line to Jacksonville, Brunswick and Savannah. Address City Clerk.

Fla., Jacksonville—American Bakery Co., Market St., let contract to Brown Realty Co., 105 Julia St., for 1-story loading shed, estimated cost \$15,000.

Fla., Miami—Florida New Process Laundries, Inc., Clifford Goes, Treas., main office N. W. 1403-5 Seventh Court, have plans under way for laundries at Daytona, St. Petersburg, Orlando, Tampa, Lakeland and Hollywood; completing first plant at 1403 Seventh Court; machinery ready to be erected; plant to be in operation soon after Jan. 1; The Austin Co., 16112 Euclid St., Cleveland, Ohio, Contr.\*

Fla., Miami Beach—Miami Beach Laundry Co., Lafayette Page, Jr., Pres., 136 William St., New York, reported erect \$250,000 laundry at 42d and Chase Ave.; 2-story; install latest laundry equipment, dry-cleaning department, etc.

Fla., Odessa—Belasco Productions, Inc., 115 W. 44th St., New York, reported, erect \$250,000 studio, acquired 30-acre site; J. Ferdinand Van, Director.

Fla., Orlando—See Land Development.

Fla., Orlando—City contemplates installing fire-alarm and police-call system. Address City Clerk.

Fla., St. Petersburg—Crisp-Clark Building Corp., chartered; Wm. C. Clark, Ray C. Crisp, both Akron, Ohio.

Fla., St. Petersburg—Coca Cola Bottling Co., Thomas N. Henderson, Pres., 1701 Central Ave., acquired site on Taliaferro St.; erect \$100,000 plant, 2-story, 100x200 ft.; install modern machinery.

Fla., St. Petersburg—Herbert E. Dodge of the Berry-Dodge Co., 224 Milk St., Boston, Mass., reported, establish coffee roasting and distributing plant.

Ga., Atlanta—Barrett Potato Chip Co., 441 Marietta St., lease building, establish plant to make potato chips and salted peanuts; install potato peeler, potato chip slicer and ovens; daily output 300 to 500 packages. (See Machinery Wanted—Potato Chip Slicer; Peanut Blancher.)\*

Ga., Douglas—Dixie Fire Kindler Co., T. M. Wood, Pres., Fountain Inn, S. C., plans establishing second plant to manufacture fire kindler (made from pine tar and wood chips).

Ga., Savannah—Naval Stores—Superior Pine Products Co., capital \$500,000, incorporated; W. J. Lawrence, Kalamazoo, Mich.; C. K. Williams, Easton, Pa.

Ga., Quitman—S. E. McGowan, owner, McGowan Undertaking Co., acquired two undertakers companies of Valdosta; will combine with present establishment; to be known as McGowan Sineath Co.

Ga., Savannah—Henry Schoenfeld, Newton Center, Mass., reported, contemplates establishing plant to manufacture food products.

Ky., Greensburg—Greensburg Bottling Co., capital \$10,000, incorporated; T. P. Chaudoin, M. A. Vaughn.

Ky., Louisville—Lee Lewis, Inc., Ninth and Jefferson St., will convert adjoining 3-story property into ice cream plant; estimated cost \$60,000.

La., Alexandria—Meyer Cafe Co., Inc., capital \$10,000, chartered; Henry Q. Marx, A. H. Meyer.

La., Lake Charles—Riceland Ice Cream & Creamery Co., Crowley, La., reported erect creamery plant.

La., New Orleans—Eastern Steamship Lines, Galen L. Stone, Chrmn. Board of Directors, Brookline, Mass., reported, absorbed Old Dominion Line and has merged with Gulf & Southern Steamship Co. to expand New Orleans coastwise trade.

La., Olga—Olga Oyster Shipping Co., capital \$25,000, incorporated; John Vela, Spiro Pavlovich.

Md., Baltimore—Union Labor Life Insurance Co., 2725 Alameda Ave., capital \$1,000,000, incorporated; G. W. Perkins.

Md., Brentwood—Medicines—Vasco Products Co., Inc., 467-C St. N. W., Washington, D. C., reported acquired 100x200-ft. site; will

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erect 35x100-ft. plant, brick, concrete floors, composition shingle roof, taking bids.

Md., Baltimore—Steamship Lines—Consolidated Navigation Co., Citizens Natl. Bank Bldg., will operate line between Baltimore and Palm Beach, Fla.

Miss., Gulfport—Gulfport-Biloxi Daily Herald let contract to Collins Brothers Construction Co. for 47x50-ft. building on Jackson St., standard construction, foundation laid for additional stories when needed.

Miss., Jackson—Jackson Casket & Manufacturing Co., 535 Porter St., acquired tract in southwestern suburbs, portion of which faces Illinois Central Ry.; will enlarge factory yards.

Miss., McComb—The Enterprise, J. O. Emmertich, Editor, acquired site on N. Broadway; will erect fireproof printing plant; brick and concrete, steel sash; install additional equipment.\*

Missouri—General Baking Corp., 342 Madison Ave., New York, reported, acquired the Smith Great Western Baking Corp. operating plants in Missouri, Kansas and Oklahoma; Bryce B. Smith, in charge of Western Div., with headquarters in Kansas City.

Mo., Clayton—Crystal Springs Lake Park Amusement Co., capital \$10,000; John G. Oehler, Route No. 1, Box 330.

Mo., Hannibal—Hannibal Warehouse Co., capital \$12,000, chartered; Dan H. Hafner, Jr., Perry W. Fletcher.

Mo., Kansas City—Kansas City Rug & Carpet Cleaning Co., capital \$16,000, incorporated; F. D. Glore, 704 Scarritt Bldg.

Mo., Kansas City—Veterinary Products Co., incorporated; Robert Oleurance, 4318 Easton Ave.

Mo., Kansas City—The Siphonmix Co., incorporated; Chas. P. Hinson, 4033 Kenwood St.

Mo., Kansas City—Industrial Testing Laboratory, Inc., capital \$10,000, chartered; Jos. C. Patrick, 772 Gibraltar.

Mo., Kirksville—Contracting—J. H. Hunzinger & Co., capital \$12,000, incorporated; J. H. Hunzinger, W. H. Wagner.

Mo., Rollo—Home Candy Co. incorporated; B. F. Thompson, W. J. Durant.

Mo., St. Joseph—Buchanan County Construction Co. incorporated; Thos. F. Ryan, Corby-Forsee Bldg.

Mo., St. Louis—Tite Lock Roofing Co. incorporated; D. H. Rouse, 627 Planters Bldg.

Mo., St. Louis—Syracuse Washington Machine Sales Co., Inc., capital \$50,000, incorporated; Roland S. Baker, 1404 Federal Commerce Trust Bldg.

Mo., St. Louis—Washington Shoe Co., capital \$100,000, incorporated; Louis K. Kane, 5217 Enright St.

Mo., St. Louis—Consolidation of ownership of five fur houses, including Fouke Fur Co., Funsten Bros. & Co., 117 S. Second St., both St. Louis, into one holding company, the Elington-Schild Co., Inc., 226 W. 30th St., New York, with capital of \$17,000,000.

Mo., St. Louis—General Outdoor Advertising Co., Inc., capital \$900,000, chartered; Roland S. Baker, 1404 Federal Commerce Trust Bldg.

Mo., St. Louis—New Process Cork Co., capital \$12,682, incorporated; J. B. Ribas, 406 N. Third St.; bottle caps and cork products.

Mo., St. Louis—Inland Waterways Corp., 1016 Munitions Bldg., Washington, recommend to War Dept. purchase of \$2,000,000 worth of new equipment for Mississippi-Warrior barge line service; co-operation pledged in building of joint rail and water terminals at Helena, Ark., and Baton Rouge, La.

Mo., St. Louis—American Brown-Boveri Electric Corp., New York, reported acquired Molomey Electric Corp.'s plant, 1149 S. Seventh St.; manufacture electrical transformers.

Mo., St. Louis—St. Louis Trunk Hardware Mfg. Co., 609 Chouteau Ave., will erect 1-story, 100x500-ft. plant, brick and steel, daylight type, wood roof; install plating equipment and punch presses; total cost about \$150,000.\*

Mo., St. Louis—Laclede Hotel Co., capital \$50,000, incorporated; Jacob A. Pastel, 5528 Pershing Rd.

Mo., St. Louis—Pioneer Lubricants, Inc., capital \$170,000, chartered; Geo. M. Herpel, 305 N. Meramec St.

Mo., St. Louis—Universal Match Corp., capital \$600,000, incorporated; C. Beffa, 4427 Bessie St.

Mo., St. Louis—Wellston Theaters Corp.,

incorporated; Wm. Goldman, 5286 Washington St.

Mo., St. Louis—King-Wood Theaters Corp., incorporated; Mitchell D. Frumberg, Bank of Commerce Bldg.

N. C., Benson—Benson Creamery Corp., capital \$125,000, incorporated; J. B. Johnson, Alonzo Parrish.

N. C., Charlotte—Lance Packing Co., W. 9th St., S. A. Van Every, Pres., acquired 100x150-ft. building at S. Boulevard and Arlington St.; will remodel.

N. C., Greenville—Advertising—A. P. Gilbert Co., capital \$100,000, incorporated; J. S. Ficklen, R. M. Garrett.

N. C., Greensboro—A. W. Hollady let contract to R. B. Langley, 900 Glenwood Ave., for bakery at 106 E. Lee St.; brick.

N. C., Greensboro—Hanes Ambulance Service, capital \$10,000, incorporated; W. G. Simpson, 500 Arlington St.

N. C., Pinehurst—Carolina Pharmacy Co., capital \$25,000, incorporated; Wesley R. Viall, Southern Pines; B. A. Hoff, Kinston.

N. C., Raleigh—Food Products—Enterprise Feed & Milling Co., capital \$50,000, incorporated; H. W. Ford, 124 E. 54th St., Savannah, Ga.

Okla., Miami—Miami Reclaiming Co., capital \$10,000, incorporated; R. W. Hulsman, P. V. Wisby.

Okla., Tulsa—Merry Screen & Weather Strip Co., 219 S. Madison St., incorporated.

Okla., Tulsa—Ward Chemical Co., Wm. V. Ward, Pres., Atco Bldg., let contract to Gantz Tank Co., Sapulpa, for 24x60-ft. addition, corrugated iron, concrete floors, metal roof; install mixing and grinding equipment, daily output 10 tons metal paint and aluminum products. (See Machinery Wanted—Pebble Mill; Motor; Crucible.)\*

S. C., Beaufort—Builders Supply Co., capital \$10,000, incorporated; F. H. Rhodes, H. Holland.

S. C., Charleston—Novelties—F. DeL. Kirk Co., capital \$25,000, incorporated; F. DeL. Kirk, 23 Smith St.

S. C., Columbia—Advertising—Carolina Litex Co., incorporated; J. D. Nunamaker, 1105 Price Ave.

S. C., Gaffney—Hub City Ice Cream Co. of Spartanburg acquired Colonial Ice Cream Co.'s plant, to be known as Gaffney Ice Cream Co., at present use for storage house.

S. C., Greenville—Contractors—Welch, Maudlin & Snead, Woodside Bldg., incorporated; W. M. Welch, Pres.

Tenn., Memphis—Memphis Packing Corp. of Tennessee, Trigg Ave., reorganized; Joseph Newberger, has packing plant on Riverside Blvd.; daily capacity 500 hogs and 75 cattle; continue existing business.

Tenn., Nashville—Andrew Jackson Hotel Operating Co., capital \$200,000, incorporated; Louis J. Dinkler, Henry C. Heinz.

Tex., Amarillo—Amarillo Construction Co., capital \$50,000; Geo. W. Klock, E. R. Biggs.

Tex., Clarksville—City, H. M. Cooley, Mayor, contemplates purchasing Ahrens-Fox service truck.

Tex., Cleburne—Cleburne Publishing Co., incorporated; J. N. Vickers, R. B. Vickers.

Tex., Colorado—Croschwaite Drug Co., Inc., capital \$12,000, chartered; W. N. Croschwaite, R. K. McAdams.

Tex., Corsicana—D. E. Dickson has contract at \$8640 for laundry plant and at \$9700 for addition to machine shop at State Orphans' Home.

Tex., Dallas—United Roofing Co., Inc., chartered; R. F. Henderson, 524 E. 13th St.

Tex., Dallas—Stewart Office Supply Co., capital \$50,000, incorporated; W. N. Stewart, 5845 Goliad St.

Tex., Dallas—Thorburn Broom Co. increased capital, \$10,000 to \$25,000.

Tex., Dallas—Bailor Cultivator Co., incorporated; E. D. Kieley, 5107 Worth St.

Tex., Dallas—Dorr Optical Co., capital \$40,000, incorporated; John E. Dorr, Rodgers Dorr.

Tex., Fort Worth—Pioneer Publishing Co., incorporated; Chester R. Bunker, 111 E. Sixth St.

Tex., Fort Worth—Certified Sterillizer Corp. of America, chartered; Ernest Ditto, 1100 Eighth Ave.

Tex., Fort Worth—State Amusement Co., capital \$50,000, incorporated; U. M. Simon, 322 S. Adams St.

Tex., Houston—The Sealy Mattress Co., 606 Lake Shore Drive, Chicago, E. E. Edwards,

Pres., reported, will move offices and plant from Sugarland; leased 25,000 sq. ft. floor space in building on Washington Ave. and National St.

Tex., Houston—Phenix Dairy, M. C. Pelham, 1502 Heiner St., receiving bids for \$45,000 dairy building, 2-story, 106x120 ft., brick, tile, fireproof; freight elevator; R. D. Steele, Archt., First Natl. Bank Bldg.

Tex., Houston—Texas Dehydrating Co., capital \$20,000, incorporated; Victor J. Von Schoeler, Waldemar Von Schoeler.

Tex., Houston—Rodgers-DeLong Hotel Co., capital \$20,000; Richard Rodgers, 205 Avondale St.

Tex., Laredo—Sonora News and Stationery Co., capital \$10,000, incorporated; A. W. Lang, R. P. Woodward.

Tex., Marshall—Marshall Supply Co. increased capital, \$10,000 to \$15,000.

Tex., Orange—Advertising—Josephson, Inc., capital \$30,000, chartered; H. J. L. Stark, I. E. Josephson.

Tex., San Antonio—White Star Laundry, S. G. Bechtel, Mgr., 115 W. Houston St., acquired site, Dallas and Jones Ave.; will erect \$75,000 laundry.

Tex., Waco—City contemplates installing 50 new fire-alarm boxes; also purchase motor pick-up street sweeper. Address City Manager McAdams.

Tex., Waxahachie—Supreme Ice Cream Factory incorporated; L. W. Ledwell, E. C. Ledwell.

Va., Harrisonburg—The Thompson Hatchery, Inc., capital \$20,000, chartered; John H. Byrd, Wm. H. Byrd.

Va., Marion—Watauga Drug Co., capital \$10,000, chartered; O. C. Sprinkle, W. M. Slater.

Va., Richmond—Grace Cafeteria, Inc., capital \$25,000, chartered; M. D. Freeney, James Buchanan.

Va., Richmond—Albemarle Paper Co., Tredgar St., has permit for extensions and improvements to plant.

Va., Richmond—Everett Waddey Co., 1105 E. Main St., has plans for 6-story addition to present printing and bookbinding plant on 12th St.; 50x125 ft., reinforced concrete, asphalt roofing, wood block floor, metal doors, wire glass, steel sash and trim, rolling partitions; estimated cost \$150,000; provide roof garden for employees; Carneal & Johnson, Archts., 806 Electric Bldg.

W. Va., Manning—R. M. Alder and associates interested in reorganizing Mountain State Window Glass Co.; manufacture flat window glass.

### Motor Bus Lines and Terminals

D. C., Washington—Washington Rapid Transit Co., 4603 Fourteenth St. N. W., has permit to operate 4 passenger bus lines in vicinity of District of Columbia.

Fla., Miami Beach—N. B. Roney, 2250 Collins Ave., reported establish motor bus transportation system along ocean front, from First St., Miami Beach, to Hollywood.

Fla., Tampa—Tampa Electric Co. Tampa and Cass Sts., has permit to operate two additional bus lines, one to Sulphur Springs and one to Palma Cella.

Md., Baltimore—Union Bus Terminal Co., Edmund J. Wachter, Pres., 211 W. Redwood St., let contract to Consolidated Engineering Co., 20 E. Franklin St., for union motor bus terminal at cor. Redwood and Liberty Sts., estimated cost \$250,000; Chas. M. Anderson, Archt., 9 E. Pleasant St.

Md., Baltimore—Red Star Line, Inc., care of Hutzler Brothers Store, Howard St.; establish motor bus service to Washington, Philadelphia and Wilmington.

Mo., St. Louis—Illinois Traction System, 3729 N. Broadway, acquired two single-deck motor buses, inaugurating the Edwardsville-St. Louis Bus Line Service.

Mo., St. Louis—St. Louis Bus Co., 506 Olive St., has permit to operate bus lines along various streets.\*

N. C., Raleigh—Carolina Coach Co., capital \$2,000,000, incorporated; Henry A. Page, Jr., Aberdeen; H. H. Jenkins, 10 S. Calvert St., Baltimore, Md.; take over all bus lines between Greensboro and Raleigh, Raleigh and Fayetteville, Wilson and Rocky Mount.\*

Tex., El Paso—El Paso Electric Co. and the El Paso-Pecos Valley Stage Co. installed street car-bus line service between El Paso and Fabens.

Va., Hampton Roads (Branch Norfolk)—Hampton Roads Transportation Co., 912 Water St., has permit for freight line be-

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tween Norfolk and state line, with Elizabeth City, N. C., as destination.

Va., Norfolk—Norfolk-Gloucester Bus Line has permit for passenger bus line between Mathews Courthouse and Norfolk via Gloucester Courthouse, Lee Hall and Newport News.

Va., Richmond—Virginia Stage Lines, Inc., operates line Culpeper, plans extending line to Washington, D. C.

Va., South Boston—The South Boston, Roxboro and Durham Bus Co., plans extending line to Brookneal.

Va., Warrenton—M. J. O'Connell, Pres. Chamber of Commerce, interested in establishing bus line from Warrenton to Richmond.

Va., Warrenton—Virginia Transit Co., operates line from Washington to Fairfax, plans extending to Sperryville.

Va., Warrenton—Lawrence Garage, Inc., plans extending bus line from Luray to Washington, D. C.

### Motor Cars, Garages, Filling Stations

Fla., Hastings—Hastings Motor Co., will erect 80x150-ft. building.

Fla., Miami—J. C. Devine, 1317 Collins Ave., Miami Beach, has permit for \$10,000 garage on Washington Ave. between Sixth and Seventh St.

Fla., Sarasota—James T. Black acquired The Community Service Station on Central Ave.; will remodel and operate.

Fla., Sarasota—James T. Black and H. B. Bland acquired service station on Central Ave.; will add mechanical repair shop.

Fla., Tampa—Frost Construction Co., has permit for \$40,000 garage on Garcia Ave.

Ky., Louisville—Public Cab Service Co. incorporated; Lester R. Kelley, Lee Roy Green.

Miss., Canton—Central Service Station increased capital, \$10,000 to \$25,000.

Miss., Canton—Canton Motor Co., capital \$10,000, incorporated; J. A. Beavers, S. G. Leob.

Miss., Meadville—Mississippi Motor Corp., J. J. Newman, Mgr., increased capital to \$20,000.

Miss., Vicksburg—Vicksburg Motor Co. organized; L. J. Palmer, Mgr.; leased site at Walnut and South St.

Mo., Kansas City—John P. Jordan, 15th and Prospect St., let contract to Geo. E. Jones for \$9000 garage, 50x115 ft., concrete block and brick, composition roof, concrete floors.\*

Mo., Kansas City—Norris Motor Co., capital \$25,000, incorporated; C. A. Miller, 302 Brotherhood Block.

Mo., Kansas City—W. F. Wamsley, 2412 Cypress Ave., acquired 2-story building at 207 Southwest Blvd.; will remodel for the shop.

Mo., Sedalia—Lewis-Sullivan Motors, capital \$20,000, incorporated; H. E. Lewis, Giles Sullivan.

N. C., Albemarle—Albemarle Hudson Co., capital \$50,000, incorporated; A. P. Harris, J. N. Auten.

N. C., Asheville—Weaver Motor Co., C. W. Weaver, Pres., Cox and Hilliard Sts., will erect \$75,000 building, 3-story, 50x140-ft., concrete and steel, concrete floors. (See Machinery Wanted—Garage Supplies and Equipment.)\*

N. C., Greensboro—Pickard Tire Co., Inc., capital \$100,000, chartered; R. E. Moreland, J. E. Armfield.

N. C., Nashville—Nash Service Station, Inc., chartered; T. G. Bunting; B. A. Bunting.

Okla., Ardmore—Barrett Motor Co., capital \$10,000, incorporated; I. C. Barrett; M. W. George.

Okla., Bristow—Merrill Motor Co., capital \$10,000, incorporated; C. B. McAllister, W. O. Merrill, both Sapulpa.

Okla., Bristow—McAllister Motor Co., capital \$10,000, incorporated; C. B. McAllister, Curt D. Edgerton, both Sapulpa.

Okla., Tulsa—C. H. Slaughter, Inc., capital \$10,000, chartered; C. H. Slaughter; I. A. Buck; formerly Oakland Motor Sales Co.

S. C., Charleston—Mehrtens Motor Co., capital \$10,000, incorporated; O. F. Wieters; W. R. Mehrten.

S. C., Greenville—Rebuilt Tire & Rubber Co. incorporated. Manning W. Jones, Cureton St.

Tenn., Erin—C. C. Cook & Co. plans build-

ing 2-story concrete garage, 60x100-ft., tile roof.

Tenn., Knoxville—E. H. Adams, reported, acquired Cable Motor Co. on N. Central St.; will reorganize.

Tenn., Nashville—Ramp Garage Co., J. Louis Wrenne, Pres., 3433 Woodrow Ave., plans building garage on Church St.; acquired site with 168-ft. frontage.

Tex., Dallas—Mrs. M. E. Webster, 1308 Jackson St., has permit for \$46,000 garage, 3-story, brick, tile and steel.

Tex., Dallas—Progressive Sales Corp., chartered; J. W. Henderson, N. S. Davault.

Tex., El Paso—Newway Auto Market, capital \$10,000, incorporated; J. R. McKennon; N. L. Casner.

Tex., Fort Worth—Practical Tool and Accessory Co., Inc., capital \$25,000, chartered; W. A. Gillentine, E. M. Day.

Tex., Galveston—Johnson Brothers, 1302 J St., have contract for filling station at Twentieth St. and Ave. G.

Tex., Hull—Hull Auto Co., capital \$15,000, incorporated; W. N. Pearson, Tom F. Cruse.

Tex., Luling—Oil City Garage & Tire Co., incorporated; B. C. Ross, Henry Thompson.

Tex., Lubbock—Mayer Garage, Geo. A. Mayer, Owner, City National Bank Bldg., let contract to Coleman & Jenkins for \$12,000 garage at 606 Broadway; 1-story, brick and hollow tile.

Tex., San Antonio—Geo. A. Mayer, City National Bank Bldg., let contract to Coleman & Jenkins at \$12,000 for garage at 606 Broadway; 1-story, 52x135-ft., concrete, brick and hollow tile; Phelps and DeWees, Archt., Gunter Bldg.

Tex., San Antonio—Yantis Motor Co., 321 Broadway, let following contract to Chas. Briant, Builders Exchange Bldg., at \$26,750 for garage at Fourth and Broadway; 1-story, brick, stone and reinforced concrete; for plumbing to Braden-Hudson Co., 305 E. Commerce St.; for wiring to Martin Wright, Houston St.; Harvey P. Smith, Archt., Nat'l Bank of Commerce.\*

Tex., Sterling City—Sterling Motor Co., capital \$25,000, incorporated; P. G. Stokes, J. E. Butte.

Va., Appalachia—Central Service Corp., capital \$10,000, chartered; S. A. McCluen, Big Stone Gap; T. J. Templeton, Bristol.

Va., Big Stone Gap—Long's Garage plans erecting 66x120-ft. garage; begin construction some time in the spring. (See Machinery Wanted—Structural Steel, etc.)

Va., Alexandria—Carter Motor Co., Inc., capital \$25,000, chartered; Ernest H. Daniel, 2111 19th St., N. W., Washington, D. C.

Va., Richmond—The White Co., 1921 E. Franklin St., will erect \$50,000 garage at Altamont and Moore St.

### Railways

La., Shreveport—Texas Pacific Railway, together with the Kansas City Southern and the latter's subsidiary, the Kansas City, Shreveport & Gulf Railroad, has been authorized to build nearly 4 mi. of line in this (Caddo) Parish at an estimated cost of about \$30,000. E. F. Mitchell, Dallas, Tex., is Ch. Engr. of the Texas & Pacific.

### Railway Shops and Terminals

Ark., Pine Bluff—Cotton Belt Route of the St. Louis Southwestern Ry., Daniel Upthegrove, Pres., St. Louis, Mo., reported, will expend \$130,000 on enlarging and modernizing railroad shops, including new buildings and new machinery; W. S. Handley, Ch. Engr., Tyler, Tex.

Fla., St. Augustine—Pekor Iron Works, Columbus, Ga., has sub-contract for structural iron work in construction Miller shops for Florida East Coast Ry. Co.; The Foundation Co., 120 Liberty St., New York, has contract.\*

Tenn., Knoxville—Southern Railway System, 1300 Pennsylvania Ave., Washington, D. C., reported has completed plans for rebuilding planing mill and coach shop, concrete and steel, fireproof; car shed to accommodate about 100 to 300 cars.\*

Va., Bristol—Norfolk & Western Ry. Co., W. P. Wiltsee, Chief Engr., Roanoke, Va., reported will complete and put in operation roundhouse in East End; install machinery, lay sidings, etc.; estimated cost several thousand dollars.

Va., Richmond—Chesapeake Western Ry. Co., W. E. D. Stokes, Pres. and Gen. Mgr., New York, reported contemplates building terminals and docks at mouth of York River; route surveyed.

### Roads, Streets and Paving

#### Proposed Construction

Ala., Huntsville—City, Fraser L. Adams, Mayor, plans paving all unpaved streets, including California St., Dallas to Whitesburg, and bridge over stream.

Ala., Opelika—City plans 12 blocks paving in residential section. Address City Clk.

Ark., El Dorado—See Land Development.

Ark., Hot Springs—Comms. of Street Improvement Dist. No. 82 received low bid from Geo. W. Nickels & Son, 102 Linden St., Hot Springs, at \$93,090, for concrete paving in Pleasant St. Dist.; Cleveland Smith, City Engr.

Ark., Siloam Springs—City plans paving in Dist. No. 3, cost about \$63,000. Address City Clk. See Financial News—Bond Issues Proposed.

Fla., Arcadia—See Land Development.

Fla., Boynton—See Land Development.

Fla., Bradenton—City, Roy K. Van Camp, Commr. of Public Works, plans street improvement. See Financial News—Bond Issues Proposed.\*

Fla., Bradenton—City, L. L. Hine, City Clk., receives bids Dec. 21 for 33,000 cu. yd. excavation, 46,000 lin. ft. curb, 65,000 sq. yd. paving; R. K. Van Camp, Commr. of Public Works.

Fla., Crystal River—Town, Horace N. Blanton, Mgr., receives bids about Feb. 1 for miles of rock base, sheet asphalt street paving, grading, curbing and gutter, estimated cost \$600,000; E. V. Camp and Associates, Engrs., Inverness, Fla.; plans from City Clk.\*

Fla., Daytona Beach, Peninsula Station—See Land Development.

Fla., Daytona Beach—See Land Development.

Fla., De Funiak Springs—Walton County Comms. plan building 2 roads: No. 40 and No. 60, estimated cost \$750,000. See Financial News—Bond Issues Proposed.

Fla., DeLand—Volusia County Comms. plan hard surfacing roads in Turnbull Road Dist.; also plan expending \$150,000 for road around Lake Beresford and \$70,000 for road around Lake Winnimaset. See Financial News—Bond Issues Proposed.

Fla., Ecstis—George J. Dykes, Clk., receives bids Dec. 10 for 120,000 sq. yd. street paving with necessary drainage, curb, gutter, etc.; plans on file, and from H. S. Jaudon Engineering Co., Elberton, Ga., Ecstis, Fla.

Fla., Fernandina—Nassau County Comms. receive bids soon for 2 permanent hard surfaced roads: 10.57 mi., city limits of Fernandina to coastal highway at Yulee; 1.16 mi. city limits of Fernandina to Fernandina Beach.\*

Fla., Fort Meade—City Comm. plans expending \$170,000 for 10 or 15 mi. paving. See Financial News—Bond Issues Proposed.

Fla., Frostproof—See Land Development.

Fla., Key West—See Land Development.

Fla., Key West—Monroe County Comms. plan overseas vehicular highway, from Key West to mainland.

Fla., Lake Worth—See Lake Development.

Fla., Miami—Dade County Comms. plan 60-ft. highway through Benson, 14 mi. southwest of Miami, connecting East and West Dixie Highway.

Fla., Miami—North West Seventh Ave. Improvement Assn., C. A. Roberts, V.-P., 1250 N. W. Seventh St., interested in widening Seventh Ave. 50 to 70 ft. to Dade County limits.

Fla., Miami—See Land Development.

Fla., Miami—City, H. E. Ross, Clk., receives bids Dec. 14 for street paving, 55,813 sq. yd. sheet asphalt top, 21,840 lin. ft. concrete gutter header; plans from Ernest Cotton, Director of Public Service.

Fla., Mount Dora—See Land Development.

Fla., New Smyrna—City plans widening Orange St., cost \$30,000. See Financial News—Bond Issues Proposed.

Fla., Ocala—See Land Development.

Fla., Orlando—See Land Development.

Fla., Palatka—See Land Development.

Fla., Panama City—See Land Development.

Fla., Pensacola—State Road Dept., Tallahassee, receives bids Dec. 10 to grade, construct drainage structures and pave with plain or reinforced concrete, bituminous macadam, sheet asphalt or asphaltic concrete on 8-in. Florida limerock base, 6.3 mi. Road

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No. 7. Escambia County; plans on file and from Div. Engr.; J. L. Cresap, State Highway Engr.

Fla., Peninsula Sta., Daytona Beach—City plans extending Atlantic Ave. from Main to Kemp. Address Mayor Otis.

Fla., Perry—Taylor County Commrs. plan hard surfacing roads, including State Roads Nos. 19 and 25, cost \$1,500,000. See Financial News—Bond Issues Proposed.\*

Fla., Punta Gorda—See Land Development.

Fla., Sarasota—City, E. J. Bacon, Mayor, plans extending Indiana Ave. to Adella Ave.

Fla., Tampa—See Land Development.

Fla., Tampa—City Comm. plans paving Osborne and Thirteenth Ave.

Fla., Tampa—City, Wm. E. Duncan, Clk., receives bids Dec. 22 to pave Rome Ave., 3300 sq. yd. 2-in. Fibertine, or 6-in. crushed limestone rock or shell base, 3100 lin. ft. granite curbing, 3100 cu. yd. grading; Powhatan Ave., 2½-in. asphalt block; McBerry St., 3200 sq. yd. 2½-in. asphalt block, including sand cushion, 2640 lin. ft. granite curbing, 1075 cu. yd. grading; plans from City Engr.

Ga., Atlanta—City plans paving 11 streets, cost \$91,930. Address City Clk. See Financial News—Bond Issues Proposed.

Ga., Bainbridge—Deacon County plans 3 paved roads totaling about 100 mi., estimated cost \$2,000,000. Address County Commrs. See Financial News—Bond Issues Proposed.

Ga., Fort Valley—Peach County Commrs. plan paving through county from Macon County line. See Financial News—Bond Issues Proposed.

Ga., Jackson—Butts County plans paving State Route No. 42, between Atlanta and Macon, cost about \$100,000. Address County Commrs. See Financial News—Bond Issues Proposed.

Ga., Louisville—Jefferson County, Board of Roads and Revenues, plans 40 mi. paving, north and south through county, cost \$250,000. (See Financial News—Bond Issues Proposed).\*

Ga., Oglethorpe—Macon County Commrs. plan paving 31 mi. Dixie Highway through county from Peach County line to Sumter County line, cost \$100,000. See Financial News—Bond Issues Proposed.

Ga., Savannah—See Land Development.

Ga., Valdosta—City plans paving road from city limits to end of paving on West Hill Ave. Address City Clerk.

Ga., Waynesboro—Burke County Commrs. plan building 80 mi. roads, cost \$600,000. See Financial News—Bond Issues Proposed.\*

Kentucky—State Highway Comm., Frankfort, receives bids Dec. 10 for 3 roads: Lawrence County, 6.761 mi. grade and drain, Louisa-Inez road, Toll Bridge over Levisa Fork, at Louisa, to point north of Dinithan Branch, 74,306 cu. yds. earth, loose and solid rock, borrow, structures excavation, 26,470 lbs. reinforcing steel; Ohio County, 7.095 mi. grade and drain, Owensboro-Fordsville road, Daviess County line, near Whitesville, to Fordsville, 62,600 cu. yds. earth, loose and solid rock, borrow, structures, dry and wet earth and dry and wet rock excavation, 129,682 lbs. reinforcing steel; 9.508 mi. grade and drain, Hartford-Fordsville road, N. E. corporate limits Hartford to Sulphur Springs Sta., 80,765 cu. yds. earth, loose and solid rock, borrow, structures, dry and wet earth and dry and wet rock excavation, 128,827 lbs. reinforcing steel; plans from E. N. Todd, State Highway Engr.

Ky., Barbourville—State Highway Comm., Frankfort, receives bids Dec. 10 for 2 mi. 14-ft. Barbourville-Williamsburg road, west corporate limits Barbourville toward Dishman Springs, Knox County, waterbound macadam or bituminous macadam on napped sandstone base; plans from E. N. Todd, State Highway Engr.

Ky., Calhoun—McLean County Road Commrs. plan highway between Calhoun and Beech Grove via Johnson Island route.

Ky., Hindman—Knott County plans 6 mi. highway to connect with Kentucky-Virginia road. Address Knott Fiscal Court.

Ky., Whitesburg—Letcher County Fiscal Court will let contract for Mill Creek road, to connect with Kentucky-Virginia highway near Mayking.

La., Amite—Louisiana Highway Comm., Baton Rouge, receives bids Dec. 22 for 9.83 mi. gravel Kentwood-Franklin Highway, Tangipahoa Parish, from I. C. R. R. and Avenue F, Kentwood, to Washington Parish line west of Mt. Herman; plans on file; W. B. Robert, State Highway Engr. (See Machinery Wanted—Gravel.)

La., Crowley—Acadia Parish Police Jury plans 25 to 30 mi. gravel roadway.

La., Gretna—Jefferson Parish Police Jury, Wm. Hepting, Sec.-Treas., receives bids Dec. 28 to hard surface 2 roads: 18 to 20-ft. wide Metairie Ridge, Seventeenth St. canal to Shrewsbury road; Shrewsbury road, Metairie road to Jefferson Highway; plans from Frank T. Payne, Engr., Jefferson Trust & Savings Bank Bldg.

La., Lafayette—Louisiana Highway Comm., Baton Rouge, receives bids Dec. 8 for .909 mi. Lafayette-Carencro Highway, Scott and Carencro roads to Convent St. and College Ave., Lafayette Parish; plans on file; W. B. Robert, State Highway Engr. Lately noted bids Nov. 12.

La., Lake Charles—Louisiana Highway Comm., Baton Rouge, receives bids Dec. 15 for 2.58 mi. gravel Lake Charles-DeRidder Highway, Calcasieu Parish, from present gravel road near Lake Charles to point south of English Bayou; plans on file; W. B. Robert, State Highway Engr. (See Machinery Wanted—Gravel.)

La., Opelousas—City, R. M. Hollier, City Mgr., receives bids Dec. 8 to pave with gravel Groles St., Main St. to Chachere lane.

La., Shreveport—See Land Development.

La., Ville Platte—Louisiana Highway Comm., Baton Rouge, receives bids Dec. 22 for 14.30 mi. gravel Eunice-Elton Highway, Evangeline and Jefferson Davis Parishes, 4 mi. northeast of Eunice through Basile to Elton; plans on file; W. B. Robert, State Highway Engr. (See Machinery Wanted—Gravel.)

Miss., Biloxi—City Comm., John J. Kennedy, Mayor, receives bids Dec. 23 for 28,556 sq. yd. pavement, 9243 sq. yd. sidewalk, 21,275 lin. ft. straight curb and gutter, 12,221 cu. yd. earth excavation, 5 catch basins, 4 manholes, 7123 lin. ft. vitrified clay or concrete pipe; Warrenite bitulithic or asphaltic concrete, on gravel and concrete bases, or concrete pavements; plans on file and from J. W. Billingsley, Consult. Engr., Interstate Bank Bldg., New Orleans, La.

Miss., Canton—Madison County Board of Suprs. plans building 3 graveled roads: 2½ mi. Madisonville to Meek's Ferry; 2½ mi. Pickens Pike, including bridges, also unfinished section Jefferson Davis Highway; 8 mi. from Doak's Creek Bridge, northeast of Cobbville to Camden. See Financial News—Bond Issues Proposed.

Miss., Gulfport—City Comm. receives bids Dec. 22 for street paving, sidewalks and curbing, estimated cost \$70,000; Jos. W. Milner, Mayor; Hobart D. Shaw, City Engr.

Miss., Kosciusko—Attala County Board of Suprs. receives bids Dec. 15 for 10 mi. road between Kosciusko and Carthage.

Missouri—State Highway Dept., Jefferson City, receives bids Dec. 11 for 41 roads and 52 bridges: Schuyler County, 2,379 mi. 18-ft. gravel, Glenwood-Lancaster, 23,374 cu. yd. earth, 2502 cu. yd. pavement; Chariton County, 2,814 mi. 18-ft. gravel, Salisbury east, 2887 cu. yd. pavement, 2,608 mi. 18-ft. gravel, Randolph County Line, Salisbury; Clark County, Wayland-Lewis County line; .245 mi. 18-ft. gravel; 2,999 mi. 18-ft. gravel; 2,896 mi. 18-ft. gravel; also 6 bridges over creeks, Buck and Die Runs; Lincoln County, .709 mi. 18-ft. Troy-Moscow Mills, 17,668 cu. yd. earth; also bridge over Whitecomb Creek; Benton County, 2,291 mi. 18-ft. gravel, Cole Camp, east and west, 11,404 cu. yd. earth, 2405 cu. yd. pavement, bridge over creek, 40-ft. deck girder, two 20-ft. slabs; Washington County, Potosi-Caledonia; 4,877 mi. 30-ft. graded earth, 47,059 cu. yd. earth, 2 bridges over Breton Creek; 4,589 mi. 30-ft. graded earth, 36,008 cu. yd. earth; .638 mi. 30-ft. graded earth, 54,221 cu. yd. earth and rock; bridges over Big River and Cedar Creek, three 80-ft. steel spans, three 40-ft. deck girders, 80-ft. steel spans, seven 20-ft. slabs; 4,509 mi. 30-ft. graded earth, Caledonia north and south, 33,415 cu. yd. earth and rock.

Iron County, .211 mi. 18-ft. gravel Annapolis-Des Arc, 40,695 cu. yd. earth, bridge over M. P. R. R.; 2,134 mi. 18-ft. Iron County line south, 15,579 cu. yd. earth and rock; Franklin County, St. Claim west; 3,454 mi. 18-ft. concrete, 36,473 sq. yd.; 3,702 mi. 18-ft. concrete, 39,094; 4,947 mi. 18-ft. concrete St. Clair-Gray Summit, 9894 cu. yd. earth, 52,241 sq. yd. pavement, 4,907 mi. 18-ft. concrete, 9572 cu. yd. earth, 50,420 sq. yd. pavement, 4,103 mi. 18-ft. concrete, 8206 cu. yd. earth, 43,331 sq. yd. pavement; Laclede County, 2,722 mi. 30-ft. graded earth, Dove north, 45,544 cu. yd. earth and rock, 3 bridges over McVey, Barnett and Goodwin Branches, 180-ft. steel span, three 30-ft. deck girders; 1,720 mi. 30-ft. graded earth, Lebanon east and west, 14,175 cu. yd. earth and

rock, bridge over Dry Auglaize; Pulaski County, Waynesville-Bloodland, 4,555 mi. 30-ft. graded earth, 29,352 cu. yd. earth and rock; 3,239 mi. 30-ft. graded earth, 18,558 cu. yd. earth and rock; Dent County, .321 mi. 30-ft. graded earth, Licking-Salem, 13,813 cu. yd. earth and rock; bridge over Holt Creek, 45-ft. deck girder.

In Texas County, 4,606 mi. 18-ft. gravel, Houston-Raymondsville, 50,265 cu. yd. earth and rock, bridge over Arthur Creek, 40-ft. deck girder; 2,652 mi. 18-ft. gravel, Mountain Grove-Cabool; 2,509 mi. 18-ft. gravel, Wright County, 3,535 mi. 30-ft. graded earth, Ava-Mansfield, 67,946 cu. yd. earth and rock; 2 bridges over Dry and Prairie Hollow; Douglas County, 4,645 mi. 30-ft. graded earth, Ava-Mansfield, 74,867 cu. yd. earth and rock, bridge over Bryant Creek, four 35-ft. deck girders; Stoddard County, 2,923 mi. 18-ft. concrete, Dudley west, 27,124 cu. yd. earth, 30,669 sq. yd. pavement, 33,300 lbs. steel structure, 2 bridges over ditches, 40-ft. and 50-ft. I-beam spans; 4,129 mi. 18-ft. concrete, Gray Ridge-Morehouse, 38,867 cu. yd. earth, 42,950 sq. yd. pavement, 36,600 lbs. steel structure; widen 6 bridges, 24-ft., 34-ft., 35-ft., 44-ft. I-beam spans, two 24-ft. slabs, 120-ft. steel span; New Madrid County, 3,717 mi. 18-ft. concrete Morehouse, east and west, 16,043 cu. yd. earth, 38,884 sq. yd. pavement, 44,060 lbs. steel structure; widen 3 and build 1 bridge, 50-ft. steel, 35-ft., two 40-ft. I-beam spans.

In Scott County, 2,491 mi. 18-ft. concrete, Sikeston west, 8674 cu. yd. earth, 26,127 sq. yd. pavement, widen 2 bridges, 50-ft. steel, 30-ft. I-beam spans; 4,927 mi. 18-ft. concrete, Sikeston east, 17,060 cu. yd. earth, 51,595 sq. yd. pavement, 11,340 lbs. steel structure; build 2 bridges, widen bridge, 70-ft. and 80-ft. steel spans, 30-ft. deck girder; Butler County, Poplar Bluff-Dekins Ferry; 4,454 mi. 30-ft. graded earth, 33,597 cu. yd. and three 18-ft. slabs; 4,034 mi. 30-ft. 25-ft., 40-ft. and two 30-ft. deck girders; three graded earth, 46,866 cu. yd. earth, bridge over slough, thirteen 20-ft. I-beam spans; 4,773 mi. 30-ft. graded earth, 46,050 cu. yd. earth; 3 bridges over drainage ditches, three 25-ft., 40-ft. and 30-ft. deck girders; three 24-ft. slabs; .340 mi. 30-ft. graded earth, 6782 cu. yd. earth, 110,700 lbs. steel structures; 3,763 mi. 30-ft. graded earth, 31,028 cu. yd. earth; Stoddard County, Puxico-Bollinger; 4,493 mi. 30-ft. graded earth, 89,152 cu. yd. earth; 2 bridges over ditches, two 24-ft. slabs, 30-ft. deck girder; 4,516 mi. 30-ft. graded earth, 64,584 cu. yd. earth, 3 bridges over ditches; plans from B. H. Piepmeyer, Ch. Engr.

Mo., Clayton—St. Louis County Commrs. plan hard surfaced road, cost \$5,000,000. See Financial News—Bond Issues Proposed.

Mo., Jefferson City—City, H. A. Nall, Deputy City Clk., plans grading, laying cement curb and gutter and penetration bituminous macadam paving on Benton St., High to McCarty, also improving Locust and High Sts.

Mo., St. Joseph—City plans grading Pear St., Twenty-fourth to Twenty-eighth. Address City Clk.

Mo., St. Louis—Board of Public Service approved expenditure of \$75,100 to improve 4 streets.

Mo., Springfield—City plans paving Nettleton Ave. between College and Nichols St. Address City Clk.

N. C., Elizabeth City—See Land Development.

N. C., Saluda—Lake Summit Co., Horace L. Bomar, Pres., plans 12 mi. waterbound macadam or gravel surface highway around Lake Summit, 3 mi. west of Saluda.

Okla., Tulsa—City receives bids to pave 9 streets, including Indianapolis, Evanston; Charles Schultz, City Engr.

S. C., Charleston—See Bridges, Culverts, Viaducts.

S. C., Laurens—Laurens County Highway Comm., J. F. Jacobs, Vice-Chmn., Clinton, plans paving 2 roads: Route 10, Laurens to Watts Mill, \$30,000; Route 2, Laurens to Clinton, \$170,000. See Financial News—Bond Issues Proposed.\*

S. C., Pickens—City plans paving Main and extending paved sidewalks, cost \$28,000; Charles H. Cureton, Mayor.\*

Tenn., Knoxville—City plans expanding \$300,000 for street paving. Address City Clk. See Financial News—Bond Issues Proposed.

Tenn., Knoxville—City plans expanding about \$325,000 for paving Island Home Ave., Walker St. to bridge, laying water and sewer mains. Address City Clk.

Tenn., McMinnville—Warren County and State Highway Dept., Nashville, plan road between McMinnville and Grundy County line.

In writing to parties mentioned in this department it will be of advantage to all concerned if the Manufacturers Record is mentioned.

Tenn., Madisonville—Monroe County and State Dept. of Highways and Public Works plan improving 7 mi. State Road No. 64, McClinn County line to Madisonville; C. J. Spurling, County Court Clk.; C. A. Kennedy, County Judge.

Tenn., Selmer—State Dept. of Highways and Public Works, Nashville, plans Selmer-Savannah road to Hardin County line.

Tenn., Sevierville—Sevier County, W. L. Trotter, County Chmn., plans extending Gatlinburg road to Indian Gap on North Carolina line, cost \$200,000. See Financial News—Bond Issues Proposed.\*

Texas—State Highway Comn., Frank V. Lanham, Chmn., Austin, received low bids for 3 roads: Tarrant County, rebuild Dallas-Fort Worth Highway and grade, construct drainage structures and lay concrete pavement on 6.8 mi. between Fort Worth city limits and Arlington, Fuller Construction Co., Western Indemnity Bldg., Dallas, \$322,084; Lubbock County, 115 mi. road oil treatment, State Highway No. 9, in Lubbock, Hale, Swisher and Randall Counties, H. K. McCullom, Fort Worth, at 8¼ cents per sq. yd.\*

Tex., Albany—Shackelford County, Richard Dyess, County Judge, receives bids Dec. 15 for 3 roads, 17.59 mi. gravel and bituminous macadam, State Highway No. 23, Albany to Callahan County line; 8.18 mi. sledged stone base, bituminous macadam topping, State Highway No. 1-A; 12.71 mi. sledged stone base, bituminous top, State Highway No. 1-A, Albany to Stephens County line; Jas. E. Pirie, County Engr.\*

Tex., Baird—Callahan County, Victor B. Gilbert, County Judge, plans grading, bridges and asphalt macadam surfacing on State Highway from Eastland County line to Shackelford County line, estimated cost \$95,000.

Tex., Bastrop—State Highway Dept., Frank V. Lanham, Chmn., Austin, receives bids Dec. 11 to resurface 4.4 mi. State Highway No. 20, Bastrop County; R. J. Hank, State Highway Engr.

Tex., Big Spring—City plans paving in downtown district. Address City Clk.

Tex., Brenham—Washington County, J. H. Chappell, County Judge, receives bids Dec. 14 for 13,400 sq. yd. concrete pavement; plans from City Engr.

Tex., Brownsville—Cameron County, Oscar C. Dancy, County Judge, plans State Highway No. 100, Barreda to Point Isabel; W. O. Washington, County Judge.

Tex., Carthage—Panola County, Thos. E. Boren, County Judge, plans 5.093 mi. State Highway No. 8-A, Gary to State Highway No. 8; D. E. Martin, County Engr.

Tex., Claremont—Kent County, H. W. Davis, County Judge, plans grading, bridge and hard surfacing 17.378 mi. State Highway No. 83, Garza to Fisher County line, estimated cost \$185,000; L. M. Ferlet, County Engr.

Tex., Coleman—City, J. S. Murchison, Mayor, plans street paving, cost \$75,000. See Financial News—Roads, Streets, Paving.\*

Tex., Corsicana—City, J. P. Welch, Sec., plans street paving, cost \$75,000. See Financial News—Bond Issues Proposed.\*

Tex., Cuero—De Witt County Comms., Dist. No. 1 plan 2 roads: Hard surfaced lateral road, Yoakum to Hochheim; between Yoakum and Concrete, also bridge over Guadalupe River at Concrete; cost \$200,000. See Financial News—Bond Issues Proposed.\*

Tex., Eastland—Eastland County, E. S. Pritchard, County Judge, plans 11 mi. grading, bridges and asphalt macadam surfacing State Highway, Callahan County, to point about 4 mi. from Cisco, approximate cost \$350,000; Geo. E. Franklin.

Tex., Edinburg—Hidalgo County, A. W. Cameron, County Judge, plans highway improvement, cost \$3,500,000. See Financial News—Bond Issues Proposed.\*

Tex., Floresville—Wilson County, C. B. Stevenson, County Judge, plans 10 mi. grading, bridges and asphalt macadamizing surfacing on State Highway No. 16, Karnes County line to point near Floresville, estimated cost \$250,000; Fred E. Hess, Engr.

Tex., Fort Worth—City plans street widening, paving, bridges, etc., cost \$2,200,000. Address City Mgr. Carr. See Financial News—Bond Issues Proposed.\*

Tex., Galveston—City Comms. receive bids Dec. 18 for grade raising, about 6,000,000 yd. sand filling; will sell bonds.

Tex., Henrietta—Clay County, J. P. Williams, County Judge, receives bids early in Jan. for 3 roads: 9.25 mi. 18-ft. concrete pavement on State Highway No. 50, Henri-

etta-Bowie road, estimated cost \$240,000; 7.14 mi. 18-ft. concrete pavement, State Highway No. 5, estimated cost \$185,000; plans 6.89 mi. 18-ft. concrete pavement, State Highway No. 5, east from Wichita County line, estimated cost \$70,000; W. A. Obenchain, County Engr.

Tex., Houston—City, O. F. Holcombe, Mayor, received low bid from J. M. Griswold, Polk Ave. and Santa Fe Ry., at \$12,965, to pave Buffalo Bayou Drive.\*

Tex., Karnes City—Karnes County, D. O. Klingeman, County Judge, plans 7 mi. grading, bridges, and asphalt macadam surfacing on State Highway No. 16, north line Road Dist. No. 3 to Wilson County line, estimated cost \$180,000; O. N. Powell, Engr., Kenedy.

Tex., Memphis—City plans 40 blocks street paving in residential section, cost \$50,000. Address The Mayor. (See Financial News—Bond Issues Proposed.)

Tex., Pittsburg—Camp County, Joe R. Huston, County Judge, plans 5.795 mi. grading, bridges, macadam base and bituminous top, State Highway No. 65, Pittsburg into Titus County, estimated cost \$220,000; Chas. Chappell, County Engr.

Tex., Point Isabel—See Bridges, Culverts, Viaducts.

Tex., Richmond—City, F. P. Bell, Mayor, receives bids Dec. 8 for 6150 sq. yd. crushed stone macadam base, bituminous top; 8600 sq. yd. bituminous surfacing on gravel; plans on file and from Chas. K. Kendall, County Highway Engr., Sugar Land.

Tex., Seymour—State Highway Comn., Frank V. Lanham, Chmn., Austin, receives bids Dec. 11 for 13.45 mi. grading and drainage structures on State Highway No. 23, Baylor County, 312,201 cu. yd. common, solid rock channel, borrow, etc., excavation; 119,435 lbs. reinforcing steel; 3 bridges over 20-ft. span; plans on file and from J. G. Rollins, Res. Engr.

Tex., Slaton—City, Harvey Austin, Sec., plans 20 blocks street paving, cost \$100,000 bonds; S. F. King, Mayor. See Financial News—Bond Issues Proposed.\*

Tex., Vernon—Wilbarger County plans 4.72 mi. 16-ft. concrete paving on Oklaunion road, estimated cost \$127,500; J. B. Nabors, Engr., preparing plans.

Tex., Victoria—Victoria County, P. P. Putney, County Judge, plans surfacing highway in Road Dist. No. 7. See Financial News—Bond Issues Proposed.\*

Tex., Victoria—Victoria County Comms. plan road building, cost \$1,700,000.

Va., Bristol—See Bridges, Culverts, Viaducts.

W. Va., Huntington—City, Homer L. Yeich, Commr. of Streets and Sewers, may pave intersection at Sixth St. and Third Ave.

#### Contracts Awarded

Ala., Birmingham—City Comn. let contracts at \$400,000 for concrete, sheet asphalt and asphaltic concrete paving on 13 streets: Independent Paving Co.; Mitchell Construction Co.; Federal Asphalt Paving Co.; all American Trust Bldg.; Southern Roads Co.; Bessemer Engineering & Construction Co.; both 104 N. 17th St.; H. N. Bowdry, Farley Bldg.; Morgan Hill Paving Co., Woodward Bldg.; Dunn Construction Co., Chamber of Commerce Bldg.; Wood-Rucker Construction Co.

Ark., Little Rock—Board of Comms. Missouri-Arkansas Highway, Pulaski County, Fred Watkins, Chmn., let contract to Keliber Construction Co., Southern Trust Bldg., at \$72,074 for about 1¼ mi. paving outside city limits, from east termination of Thirteenth St. through Dark Hollow road to point near Jacksonville concrete road beyond McAlmont.\*

Ark., Little Rock—City Comn. let contract to Southern Material & Construction Co., Southern Trust Bldg., at \$18,138 to pave with asphalt 5 blocks on Main St., North Little Rock, from Third St. to viaduct.\*

Florida—State Highway Dept., Tallahassee, let contracts for 3 roads and 4 bridges: St. Johns County, 15.39 mi. grading Road No. 4, A. J. Hofman, Louisville, Ky., \$158,009; Washington County, 8.21 mi. grading Road No. 1, Myers Construction Co., Hattiesburg, Miss., \$81,226; Citrus County, 6.45 mi. Road No. 5, Caye-Andrews Construction Co., Americus, Ga., \$74,578; Putnam County, 150-ft. concrete bridge, Road 14, Luten Bridge Co., York, Pa., \$36,558; Citrus County, 130-ft. concrete bridge, Road No. 5, R. H. H. Blackwell, Ellanville, Fla., \$23,228; Holmes County, 1480-ft. timber, Road No. 1, F. D. Harvey & Co., 688 S. Bellevue St., Memphis, Tenn., \$44,116; Washington County, 526-ft. timber, Road No. 1, F. D. Harvey & Co., \$17,689.\*

Fla., Daytona Beach—Daytona Shores Corp. let contract to Cannon & Newton Co., Daytona Beach, to pave Causeway section of Daytona Shores; W. R. Hodges, Ch. Engr. of development.

Fla., Key West—Monroe County Comms., Otto Kirchheiner, Chmn., let contract for 2 roads and bridge: 28 mi. paved highway on Key Largo, Janner Brothers, Davenport, Iowa; 6 mi. boulevard around portion Key West, 9 mi. road to mainland, from present terminus at Saddle Bunches to easterly shore Sugar Loaf and 180-ft. bridge over Sugar Loaf Creek, Tidewater Construction Co.\*

Fla., Pensacola, Sta. Daytona Beach—City let contract to Southern Paving Co. to pave Fern Lane and Noble St.; widen Grandview Ave.

Fla., St. Petersburg—City let contract to Noel Topping Co., St. Petersburg, for 118,000 sq. yd. brick pavement with granite curb and gutters in Eagle Crest, etc.; estimated cost \$500,000.

Fla., Zolfo Springs—State Highway Dept., Tallahassee, let contract to Federal Engineering Co., Nashville, to grade Dixie Highway through Zolfo Springs.

Ga., Columbus—City Comn. let contract to Campbell Contracting Co., Georgia Home Bldg., at \$1.40 per sq. yd. to pave sidewalks, and 75 cents per lin. ft. for curb and gutters on Forest Ave.

Ga., Valdosta—Lowndes County Comms. let contract to Miller Bros. to pave ½ mi. Valdosta-Blue Springs road into city limits.

Mo., Cape Girardeau—City Comn. let contract to W. P. George Construction Co. to pave Spanish St., Broadway to Independence; to F. W. Keller to pave Lacey St., Broadway to Perry Ave.

Mo., Springfield—City let contract to F. X. Baron for curbing on New Ave., College to Warren. Address City Clk.

Mo., St. Joseph—City let contract to Public Works Co. to pave with concrete Hyde Park Ave., Carnegie to King Hill Ave.; Land Construction Co., Ballinger Bldg., grade Tenth and Mary Sts.; repave with asphalt concrete Edmond St.; Bean & Co., grade alley between Felix and Edmond. Address City Clk.

Okla., Chickasha—City let contract to I. E. Hanson & Co., Newkirk, at \$10,763, for 30,000 yds. 7-in. gravel pavement with curb in Dist. No. 31.

Okla., Tulsa—City let contract at \$98,424 to pave 8 streets: Western Construction Co., Daniel Bldg.; Standard Paving Co.; H. L. Cannady Co., 1424 E. 4th St.; Charles Schultz, City Engr.

Tex., Abilene—City, Chas. E. Coombs, Mayor, let contract to West Texas Construction Co., Abilene, at \$14,446 for bitulthite paving on Shackelford St., Grape to Third; O. K. Hobbs, Engr.

Tex., Austin—City, John W. Tobin, Mayor, let contract to W. E. Dozier, Austin National Bank Bldg., Austin, at \$11,883 to pave 2 blocks Fourth St., 2-in. lime rock asphalt, concrete base.

Tex., Houston—City, O. F. Holcombe, Mayor, let contract to Gulf Bitulthite Co., 701 Foster Bldg., at \$33,021 to pave Calumet Ave., Chenevert to Hutchins.

Tex., Marlin—State Highway Dept., Frank V. Lanham, Chmn., Austin, let contract to Frank Denison, Temple, at about \$13,000, for 6.2 mi. surfacing on State Highway in Falls County.

W. Va., Huntington—City let contract to Jack Ullom for 3-in. brick surface on 5-in. concrete base, with asphalt filler on Twelfth Ave.; to George Hinkle at \$6282 for 3-in. brick surface on 5-in. concrete base, asphalt filler, on Enslow Ave.; A. B. Maupin, City Engr.; Homer L. Yeich, Commr. of Streets and Sewers.\*

#### Sewer Construction

Ala., Albany—City will install \$15,000 sewer in Benevolent Hospital district. Address The Mayor.

Ala., Northport—City votes Dec. 22 on \$40,000 bonds for water works and sanitary sewers; S. Z. Darden, Mayor.

Ark., El Dorado—See Land Development.

Ark., Snackover—City Comms. will soon let contract for sewer system.

Fla., Arcadia—See Land Development.

Fla., Boynton—See Land Development.

Fla., Daytona—See Land Development.

Fla., Daytona Beach—Peninsular Station—See Land Development.

Tex., Fort Worth—City voted sewer, water:

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and park bonds. (See Financial News—Bond Issues Proposed.)

Fla., Frostproof—See Land Development.  
Fla., Lake Worth—See Land Development.  
Fla., Miami—See Land Development.  
Fla., Ocala—See Land Development.  
Fla., Orlando—See Land Development.  
Fla., Palatka—See Land Development.  
Fla., Panama City—See Land Development.  
Fla., Punta Gorda—See Land Development.  
Fla., San Antonio—See Land Development.  
Fla., Sarasota—See Land Development.  
Fla., Tampa—See Land Development.  
Fla., West Palm Beach—City, C. A. Bingham, Mgr., receives bids Dec. 8 for sanitary and storm water sewers, in North Borough, Sewer Dist. No. 9. (See Machinery Wanted—Sewer Construction.)

Ga., Savannah—See Land Development.  
Ky., Paducah—City, J. M. Bailey, Mayor, will construct relief sewer to connect with new trunk sanitary sewers; cost \$50,000; Black & Veatch, Cons. Engrs., Mutual Bldg., Kansas City, Mo.\*

La., Bunkie—Town selected Henry A. Mentz, Cons. Engrs., Citizens Bank Bldg., Hammond, La., for sanitary sewer and disposal plant.

La., Shreveport—See Land Development.

Md., Baltimore—Board of Awards receives bids Dec. 9 for sanitary sewers in Districts G-13. (See Machinery Wanted—Sewer Construction.)

Mo., Joplin—Fred E. Briggs, 218 N. Third St., has contract for tile sewer in Central Ave. sewer district.

Mo., Macon—City rejected bids for repairing sewage disposal plant; will call for new bids. Address the Mayor.\*

Mo., St. Joseph—Buchanan Construction Co. has contract for Grand Ave. sewer.

Mo., St. Louis—Board of Public Service received following low bids for sewer work: Harry A. Henske, Gravois & River Des Peres Sts., at \$161,973 for Section No. 1 of Camp Springs Public Sewer; Thomas Connor and Sons at \$326,714 for Section 2; Blackburn & Crean, Garrison & Sullivan Sts., at \$276,449 for Rock Springs Public relief sewer; Fruin-Colnon Construction Co., Merchants Laclede Bldg., at \$45,044 for Section C, \$72,543 for Section D, \$63,341 for Section E of Ohio-Montrose Public Relief Sewer.\*

Okla., Billings—City let contract at \$50,320 to Asplund Construction Co., Tecumseh, Iowa, for sewerage system.\*

Okla., Chickasha—E. Strickland has contract for sanitary sewers in Dist. No. 46 and 48; Robert O. Bradley & Co., Chickasha.

Okla., Oklahoma City—City is having estimates prepared by Pearce, Greeley and Hanson, Engrs., 6 N. Michigan Blvd., Chicago, Ill., for sewage disposal plant; Bert H. Hart, City Engr.\*

Tenn., Kingsport—City, F. L. Cloud, Mgr., will improve sewer system; work by city's forces; W. E. Austin Machinery Co., Atlanta, Ga., Machinery Contrs.\*

Tenn., Knoxville—See Roads, Streets, Paving.

Tex., Catarina—See Land Development.  
Tex., Corsicana—See Financial News—Bond Issues Proposed.

Tex., Corsicana—City will extend sewer system. See Financial News—Bond Issues Proposed.

Tex., El Paso—City, W. L. Ballew, Mayor, will soon receive bids for sewer construction; F. J. Von Zuben, 511 Dan Wagner Bldg., Fort Worth, Engr.

Tex., Galveston—W. A. Kelso & Co. 2220 C St., has contract for storm drain on 26th St.\*

Tex., Kemp—City receives bids Dec 10 for sewers and water works. (See Machinery Wanted—Water Works and Sewers.)\*

### Telephone Systems

Ark., Little Rock—Cumberland Telephone & Telegraph Co., Atlanta, Ga., obtained option on property between Sixth and Center, Walnut and Chestnut; erect building.

Fla., Tampa—Peninsular Telephone Co., 100 N. Edison Ave., has permit for \$75,000 exchange building.

Mo., Jefferson City—Capital Telephone Co., reorganized, to be known as Capital City Telephone Co., will operate existing plant.

Okla., Durant—Southwestern Bell Telephone Co., St. Louis, Mo., expending \$35,000 for extension to cables; Claude A. Voyles, Dist. Mgr.

### Textile Mills

Ala., Gadsden—Davis & Allcott Co., W. B. Davis, Pres., will erect plant, daily capacity 1250 doz. hosiery; 60x180 ft.; brick; install 125 knitting machines, electric power plant; cost \$20,000.\*

Ark., Little Rock—Arkansas Cotton Mills Co., Home Insurance Bldg., Joe Ferguson, will erect textile mill.

Ga., Rossville—Richmond Hosiery Mills will increase capital, \$1,200,000 to \$2,000,000.

Ga., Roswell—Southern Textile Machinery Co., 215 S. Laurens St., Greenville, S. C., acquired machinery of Tilton Yarn and Hosiery Mills, Tilton; will install at plant of Roswell Mills, Inc.

Miss., Meridian—W. G. Wetmore has contract for erection of 50x120-ft. mill for Alden Knitting Mills.\*

N. C., Asheville—Sayles Finishing Co., Saylesville, R. I., let contract to Fiske-Carter Construction Co., Masonic Temple Bldg., Greenville, S. C., for filtering plant, 5,000,000 gals. capacity.\*

N. C., Kinston—Kinston Knitting Co. reported acquired properties of Orion Knitting Mills.

N. C., Roxboro—Somerset Mills, Inc., chartered; John C. Pass, C. H. Hunter; manufacture rayon goods.

Tenn., Chattanooga—Dixie Mercerizing Co., Watkins and Belt Railway, erect addition to spinning plant; mill construction, two stories, 150x100 ft., install 7000 spindles; Robert & Co., Architects, Bona Allen Bldg., Atlanta, Ga., will probably design addition. Robert & Co., Engrs., wire. "Dixie Mercerizing Co. proposed addition will be 150x105 ft., two-story extension to spinning mill, adding 7000 spindles; steel beams, steel sash, brick walls, wood floors; will also build two-section warehouses, 50x100 ft., and waste room 60x40 ft., together with 25 cottages; contracts for buildings will be let Dec. 16; none of other contracts placed."

Tenn., Chattanooga—Miller-Smith Hosiery Mills has plant; will install full-fashioned machinery.

Tenn., Nashville—Pioneer Braid Manufacturing Co., 251 W. Nineteenth St., New York, reported to remove plant to Nashville.

Va., Norfolk—Johathan Starr, representing New York interests, reported, to acquire 4000 acres land at Nansemond Village for knitting mill site.

### Water Works

Ala., Foley—City voted bonds for water works. See Financial News—Bond Issues Proposed.

Ala., Northport—See Sewer Construction.

Ark., El Dorado—See Land Development.

Fla., Arcadia—See Land Development.

Fla., Boynton—See Land Development.

Fla., Daytona—See Land Development.

Fla., Daytona Beach—Peninsular Station—See Land Development.

Fla., Fort Meade—City, reported, to expend \$65,000 for extension of water works. Address The Mayor.

Fla., Frostproof—See Land Development.

Fla., Lake Worth—See Land Development.

Fla., Miami—See Land Development.

Fla., Ocala—See Land Development.

Fla., Orlando—See Land Development.

Fla., Palatka—See Land Development.

Fla., Panama City—See Land Development.

Fla., Punta Gorda—See Land Development.

Fla., Sarasota—City will extend water works system. See Financial News—Bond Issues Proposed.

Fla., San Antonio—See Land Development.

Fla., Sarasota—See Land Development.

Fla., Tampa—See Land Development.

Ga., Savannah—See Land Development.

La., Gibsland—City voted to sell water and light plant to B. C. McKennon, Shreveport.\*

La., Shreveport—See Land Development.

La., Welsh—City let contract at \$51,382 to C. P. Sledge, Abbeville, for material and construction of complete water-works system; to Layne-Louisiana Co. for well.\*

Md., Baltimore—Public Improvement Comsn. reported acquired tract of about 8000 acres in Baltimore County, along Upper Gunpowder River and Prettyboy Creek; develop for impounding reservoir, impound 23,000,000,000 gals. water; V. Bernard Siems, Water Engr.

Mo., Crane—City contemplates installing water-works system. See Financial News—Bond Issues Proposed.

N. C., Shelby—L. J. and F. L. Wagner have contract for laying water main on Fallston Rd.\*

Okla., Okmulgee—City will construct dam across Salt Creek for water supply; Holway Engineering Co., Cons. Engrs., New Wright Bldg., Tulsa.

Okla., Tulsa—Board of Directors of Water Improvement Dist. No. 5, Tulsa County, Room 207 Midcontinental Bldg., receives bids Dec. 17 for furnishing materials and constructing public distribution system; bell and spigot pipe, valves, boxes; Holway Engineering Co., Engrs., New Wright Bldg.\*

Okla., Wewoka—City, Don Frazier, Clk., receives bids Dec. 7 for dam and reservoir, cost \$100,000.

S. C., Greenville—City contemplates installing water works system in West Greenville. Address The Mayor.

Tenn., Clarksville—Gracey Avenue Water Co., Ira Walker, Gen. Mgr., install water mains.

Tenn., Knoxville—See Roads, Streets, Paving.

Tenn., Knoxville—Wiley Thomas, Pur. Agt., let contract to National Meter Co., 233 Broadway, New York, to supply city with 1000 meters for year.

Tenn., Lookout Mountain—City Water Co., A. F. Porzelius, Supt., will install mains and reservoir; cost \$65,000.\*

Tenn., Nashville—City contemplates water works improvements; The J. N. Chester Engineers, Union Nat'l Bank Bldg., Pittsburgh, Pa., Cons. Engrs.\*

Tex., Alamo—City, C. C. Stotler, Clk., plans water works; estimated cost \$25,000. See Financial News—Bond Issues Proposed.

Tex., Catarina—See Land Development.

Tex., Corpus Christi—See Land Development.

Tex., Fort Worth—City voted water, sewer and park bonds. (See Financial News—Bond Issues Proposed.)

Tex., Grand Prairie—City receives bids Dec. 5 for water works. See Machinery Wanted—Water Works.\*

Tex., Kemp—City opens bids Dec. 10 for water works and sewers, cost \$115,000; 6 and 8-in. cast iron water pipe, 5 miles vitrified tile sewers, Imhoff disposal plant, dam, elevated tank and tower; Koch & Fowler, Cons. Engrs., Central Bank Bldg., Dallas. (See Machinery Wanted—Water Works and Sewers.)\*

Tex., Palacios—Texas National Guard, care of Lieut. Col. Claude A. Adams, Camp Mabry, Austin, receives bids for water works improvements. (See Machinery Wanted—Water Works.)\*

Va., Staunton—City Mgr. receives bids Dec. 15 for water works. (See Machinery Wanted—Water Works.)\*

### Woodworking Plants

Fla., Lake City—Alexander Lumber Co., 20 W. Jackson Blvd., Chicago, Ill., reported, establish plant to make sectional houses; capacity 200 complete units monthly.

Fla., Miami—Roman Furniture Manufacturing Co., 685 N. W. 13th St., let contract to Remsburg Construction Co., Miami, at \$30,000, for 3-story, 194x42-ft. building; concrete block, hardwood floors, built-up roof; install \$15,000 additional machinery, furnished by Wyssong & Miles, Greensboro, N. C.; New Advance Machine Co., Van Wert, Ohio; Salem Foundry & Machine Works, Salem, Va.; Martin Ives, Archt., Fourth St. and Sixth Ave.\*

Ga., Atlanta—Wood Trusses—McKeown Brothers Co., John C. McKeown, Pres., 112 W. Adams St., Chicago, Ill., reported, establish \$150,000 plant on Glennwood Ave., acquired 5-acre site.

Md., Baltimore—Office Furniture—J. J. Dumler Co., 815 E. Fayette St., capital \$25,000, incorporated; Jos. J. Dumler, Charles Kless.

Miss., Jackson—Furniture—Anderson Manufacturing Co. of Mississippi, Inc., capital \$200,000, chartered; H. L. Rouff, Pres., 803 N. Congress St., will erect \$100,000 plant on Industrial Heights; include dry kilns, etc.; has 13-acre site.

Mo., St. Louis—Irvin Hardwood Flooring Co., 514 Fullerton Bldg., has plant, daily output 10,000 ft.\*

N. C., Asheville—E. L. Hedrick plans establishing plant to manufacture old hickory furniture, install machinery. (See Machinery Wanted—Woodworking Machinery.)\*

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N. C., Lenoir—Stubbs Veneer Co., capital \$100,000, incorporated; D. H. Stubbs, C. H. Hopkins.

N. C., Thomasville—Thomasville Bedding Co., incorporated; Geo. Lambeth, J. R. Myers; acquired site on Taylor Ave., erect first building, 2-story, 48x126-ft., manufacture complete bedroom suites, etc.

S. C., Cordesville—S. M. Parker Lumber Co., S. M. Parker, Pres., will rebuild barrel factory, saw mill and dry kilns burned at loss of \$200,000.

Tex., Fort Worth—Fort Worth Casket Co., 1304 E. Front St., will not build new plant until late in 1926.\*

Tex., Houston—Continental Wirebound Box Co., Inc., 2324 Maury St., let contract to Henry Yates, 1213 Wrightwood St., for \$25,000 plant, corrugated iron walls, tar and gravel roof, monitor type construction, 170x105 ft.; machinery not decided upon; daily output carload wirebound boxes; Frank Zumwalt, Archt., Robert J. Cummins, Const. Engrs., both Bankers Mortgage Bldg.

## FIRE DAMAGE

Ala., Andalusia—One unit of the Andala Co.'s clothing plant; loss \$40,000.

Ala., Birmingham—Engraving department of Zac Smith Stationery Co., 2012 First Ave.; loss \$50,000.

Ala., Birmingham—Bill's Automobile Accessory Co.'s plant at 421 S. 20th St.; loss from \$30,000 to \$40,000.

Ala., Fullerton—J. Robert Henderson's mercantile establishment.

Ala., Troy—School building at Little Oak. Address Pike County Board of Education.

Ark., Arkadelphia—Moore Bros. Service Station, Lofton, McNutt & Co.'s shops, Randall & James garage; loss \$25,000.

Ark., Cotton Plant—Stores in Meehan Building, including Martin's drug store, City barber shop, Alex Woods dry goods, Solomon Nathan's dry goods and other buildings; loss \$40,000.

Ark., El Dorado—Garage owned by Carl Oehler at 925 S. Washington Ave.

Ark., Jonesboro—H. A. Mullins' furniture store building, owned by Berger Estate.

Ark., Norphlet—Twenty-four buildings, including American Pool Hall, Red Cross Drug Store, Tyron Barber shop, Postoffice, Union Hotel, city jail, Lafayette Cafe; loss \$150,000.

Fla., Coconut Grove—Bungalow, S. Miami Ave. and Osceola Rd., owned by Judge Mitchell D. Price, Bay Shore, Coral Gables Rd., Miami; loss \$10,000.

Fla., Dade City—Pumping station used by Sunny Brook Tobacco Co. for irrigation.

Fla., Jacksonville—First Christian Church, Monroe and Hogan Sts.; loss \$250,000.

Fla., New Smyrna—Dr. L. B. Bouchell's residence.

Fla., Tampa—T. Edwin Bryan's residence, Shell Point; loss \$15,000; residences of J. H. Young, Floribanks and Nebraska Aves., \$2500, and Chas. H. Brown, 209 E. Seventh Ave., \$2000.

Fla., Tampa—Apartment house owned by T. W. Green, 203 Verne St.; loss \$15,000.

Ga., Atlanta—East Lake Country Club building; loss \$200,000.

Ga., Atlanta—Mrs. Mary M. Delbridge's residence, 530 Spring St., and vacant dwelling, Spring and Fourth Sts.; loss \$25,000.

Ga., Homerville—Homerville Theater building, owned by Judge W. V. Musgrove.

Ga., Sylvester—Grain elevator and peanut mill of the Sylvester Milling Co.; loss between \$15,000 and \$20,000.

Ky., Eddyville—Graded and high school building; loss \$15,000. Address School Board.

Ky., Eddyville—Tanner's store; loss \$40,000.

Ky., Louisville—Residence, Audubon Park, of Jos. A. Humphreys, care Courier Journal; Ben Klein's grocery, 351 E. Jefferson St.; total loss about \$30,000.

La., Alexandria—I. Schwartzberg department store on Second St.; loss \$75,000.

La., Lake Charles—J. G. Johnson's residence; loss \$45,000.

Md., Frederick—D. C. Ramsburg's warehouse and barn.

Md., Frederick—Two dwellings owned by

Frank V. Staub and 4 by Mrs. Joanna Brightwell.

Miss., Columbia—Garage and store room of Kingsbury & Robertson; People's Restaurant.

Miss., Foxworth—Hubbard Drug Store, Pittman's Market, J. B. Summers' store and other buildings; loss \$35,000.

Mo., Dutchtown—L. C. Rau's general store and postoffice; loss \$20,000; Amelunke restaurant and dance hall, Modern Woodmen Hall, Walter Eggmann's residence; total loss \$9000.

Mo., Springfield—L. A. D. Crenshaw's residence; loss \$25,000.

Mo., St. Louis—Storage Warehouse of Polar Wave Ice & Fuel Co., 3638 Olive St., at 7800 N. Broadway, loss about \$50,000; Jos. E. Muckerman, Gen. Mgr.

Mo., Vandalla—Farber firebrick plant, owned by Vandalla Firebrick Co., Toledo, Ohio; loss \$250,000.

N. C., Windsor—E. S. Dall Co.'s warehouses and shops; George W. Mizelle, Dr. L. B. Evans and Dr. H. W. Lyon's stores; loss \$25,000.

S. C., Cordesville—S. M. Parker Lumber Co.'s barrel factory, saw mill and dry kilns, estimated cost \$200,000.

S. C., Gaffney—Store on Rutledge Ave., operated by William Dobson.

S. C., Waltersboro—Depot, station and offices of Atlantic Coast Line Rwy., J. E. Willoughby, Ch. Engr., Wilmington, N. C.

Tenn., Athens—Carl Fennell's residence, W. Washington St.

Tenn., Chattanooga—Signal Auto Painting Co., 109 Frazier Ave., North Chattanooga Electric Co., Walker & Wiggs' barber shop, North Side restaurant, Smith tin shop and others; loss \$75,000.

Tenn., Bell Buckle—School house at Hart's Chapel. Address Bedford County Board of Education, Shelbyville.

Tenn., Huntingdon—Pleasant Hill Methodist Church, address the Pastor; Mrs. Jesse McAlexander's residence.

Tenn., Memphis—Women's prison, power plant, commissary, storehouse, laundry, kitchen and main mess hall of Shelby County workhouse; loss \$25,000.

## BUILDING NEWS BUILDINGS PROPOSED

### Association and Fraternal

Fla., Boca Raton—Mizner Development Corp. interested in formation of American Legion post and erection of clubhouse.

Fla., Daytona Beach—Building Trades Council, Frank Murphy, member, plans 6-story Labor Temple.

Fla., Miami—Young Men's Christian Assn., 40 N. E. Third Ave., J. E. Junkin, Sr., Pres. Board of Directors, plans \$1,000,000 building, N. W. First St. and N. River Drive; gymnasium, about 500 rooms.

Mo., Sedalia—Sedalia Lodge No. 125, B. P. O. E., considers building.

N. C., Asheville—Negro Young Men's Christian Assn. has permit for \$10,000 building, E. College St.; 9 rooms.

Va., Dillwyn—Ancient Free and Accepted Masons, Emmet D. Gregory, member Bldg. Comm., erect brick temple, 3 stories, 50x80 ft.; post office and quarters for Merchants & Planters National Bank on first floor, lodge rooms above.

### Bank and Office

Ark., Pine Bluff—Arkansas Natural Gas Co., 212 N. Barr St., receives bids Dec. 5 for 2-story fireproof building, W. Fifth Ave.; plans and specifications from Mitchell Selligman, Archt., 206 Pine St.\*

Fla., Auburndale—State Bank of Auburndale, Paul Braddock, Cashr., erect building, Tampa and Orange Sts.; 3 stories; bank on first floor, offices above; Francis J. Kennard & Son, Archts., Krause Bldg., Tampa, razing structure on site.

Fla., Bartow—Polk County National Bank, E. L. Wirt, Vice-Pres., erect 7-story bank and office building, Broadway and Main St., to erect store and office building on site of present structure upon completion of former building.

Fla., Daytona Beach—Ganymede, Inc., S. Beach St., remodel office; cost \$20,000.

Tenn., Memphis—Mississippi Valley Grain Co.'s plant at Broad St. and Union Railroad in Binghampton; loss \$200,000.

Tenn., Nashville—Main building of Montgomery Bell Academy; loss \$44,000. Address John Early, Pres. of Board of Directors.

Tenn., Paris—Paris Oil Co.'s supply house and engine room.

Tex., Dallas—Apartment house at 5458 Goodwin Ave., Vickery Place, owned by John Reasonover, 106 Melba St., Oak Cliff; loss \$25,000.

Tex., Dallas—Sam A. Leake's residence, 3722 Gillon Ave., Highland Park; loss \$10,000.

Tex., Hillsboro—H. Simon & Sons dry goods store; loss \$10,000.

Tex., Huntsville—W. O. B. Gillespie's residence.

Tex., Lakeview—Moore Garage, Gosden Drug Store, Gatlin Mercantile Co., postoffice, Lusk Cafe and other buildings.

Tex., Marshall—W. L. Roe's grocery and merchandise store, E. Grand Ave. and Price St.; loss \$25,000.

Tex., San Angelo—G. B. Heslep's residence at Rocky Hill Poultry Farm, 1018 Veck St.; J. D. Sugg Estate's cotton gin; loss \$35,000.

Tex., Sweetwater—Cotton offices of O. A. Arbaugh, Dr. G. Burton Fain's offices, both in building owned by S. H. Prim, Dublin; loss \$15,000.

Va., Kilmarnock—J. R. Sullivan's residence.

Va., Lynchburg—Drying annex of Subling & Co.'s tobacco factory, Thirteenth and Main Sts.

W. Va., Huntington—Stone Department Store, 1047 Third Ave., owned by J. E. Stone and I. W. Taylor; loss between \$10,000 and \$15,000.

W. Va., Iaeger—H. T. Martin barber shop, Belcher & Morgan grocery store, H. Paul lunchroom; loss \$20,000.

W. Va., Wheeling—New Pastime Theater, Shaver Bldg.; loss \$80,000.

W. Va., Williamson—Jos. Wiles' residence and garage, also store; all Gray Eagle, near Williamson; loss \$15,000.

Fla., Daytona Beach—Daytona Beach Chamber of Commerce plans fireproof building, 3 stories, at \$125,000 or six at \$325,000, 72x70 ft.; may use one elevator. architect not selected.\*

Fla., Jacksonville—Chamber of Commerce, E. P. Owen, Jr., Mgr., selected design of Roy A. Benjamin, Bisbee Bldg., for building, W. Duval and Julia Sts.; 3 stories; auditorium, kitchen, offices; stores on first floor; foundation of store section to permit 5 additional stories.\*

Fla., Miami—Hollywood Land & Water Co. remodel offices, E. Flagler and First Sts.; cost \$25,000, exclusive of fixtures and furnishings; Bookie & Leister, Archts., both Hollywood; A. Newton Robson, Contr., 320 N. W. Second St., Miami.

Fla., Miami—Sutherland-Allen Corp., Jas. Sutherland, Pres., Newark, N. J., erect 2 office and store buildings, Ponce de Leon Ave., and 3 apartment houses, Miami-Biltmore section; total cost \$500,000; plans for former being drawn by Robt. Taylor, 2248 N. E. Second Ave.

Fla., St. Augustine—First National Bank, 32 Cathedral Place, J. D. Puller, Pres., plans building; F. A. Hollingsworth, Archt., City Bldg.; plans not completed.\*

Fla., St. Augustine—Model Land Co., J. W. Hoffman, Pres., remodel building, Hypolita and St. George Sts.; cost \$30,000; electric passenger elevator; F. A. Hollingsworth, Archt., both City Bldg.

Fla., St. Petersburg—Frank B. Mills and John L. Landis, both Cleveland, O., erect \$350,000 store and office building, Ninth St. and Central Ave.; 10 stories; Olin H. Round and Lester Avery, Archts., 2 Roser Bldg., St. Petersburg; work under supervision of Mr. Mills.

Fla., St. Petersburg—Elmer Ermatinger, 121 18th Ave., N., 10-story theater and office building. (See Buildings Proposed—Theaters.)

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Fla., Tallahassee—State, C. W. Hunter, Chmn. Board of Commissioners of State Institutions, appropriated \$300,000 for additional office building; 3 or 4 stories, concrete; plans tentative.

Fla., Wimauna—Wimauna Bank & Trust Co., P. D. B. Stansell, Pres., erect clay tile and face brick veneer building; 20x40 ft.

La., Algiers (Station A. New Orleans)—Algiers Trust & Savings Bank selected Favrot & Livaudais, Ltd., Hibernia Bldg., New Orleans, as architects for 1-story bank building, Verret and Eliza Sts.; 40x60 ft., pressed brick, stone trim, composition roof, vaults, fixtures, plumbing, heating and electric work.\*

La., New Orleans—Pere Marquette Building Co., E. M. Loch, Pres., Hibernia Bank Bldg., driving piling for \$2,000,000 Pere Marquette Bldg., Commerce and Baronne Sts.; steel and reinforced concrete, 18 and 2 and 6 stories, 129x129 ft., 144x77 ft. and 63x126 ft., cement floors, composition roof, hollow and interior tile, metal doors, mail chutes, ventilators, ornamental terra cotta, steel sash and trim, wire glass; S. Scott Joy, Archt., 2001 Pershing St., Chicago, Ill.; Wm. E. Spink, Asso. Archt., 608 Canal Commercial Bank Bldg.; excavation, foundation and steel contracts let.\*

Miss., Jackson—Merchants Bank & Trust Co. considers leasing property, Capitol and Lamar Sts., and erecting bank building.

Mo., Kansas City—Midland Theater & Realty Co., 20th and Walnut Sts., Herbert M. Wolff, Pres., reported considering erection of 5-story theater, store and office building, 13th St. from Main St. to Baltimore Ave.; foundation to permit 12-story office section; theater to seat 4000 and shops on first floor, offices above.

Mo., St. Louis—Engineers' Club of St. Louis. (See Buildings Proposed—Miscellaneous.)

N. C., Greensboro—Greensboro Bank & Trust Co., Capt. J. W. Fry, Pres., will not erect bank and hotel building for which contract was recently let to Joe W. Stout & Co., Sanford; will construct another type bank building, details not decided; Chas. C. Hartmann, Archt., Jefferson Bldg.\*

Tenn., Chattanooga—Chamber of Commerce purchased building, 919 Broad St.; remodel 2 upper floors; install elevator.\*

Tenn., Old Hickory—DuPont Rayon Co. erect office building; 2 stories, red brick, cafeteria, rest rooms, etc.

Tex., Houston—Petroleum Building Co., T. P. Lee, Pres., Second Natl. Bank Bldg., receives bids Dec. 8 for 21-story Petroleum Bldg., Texas Ave. and Austin St.; cost \$1,250,000; fireproof, reinforced concrete, steel, stone and brick; Alfred C. Bossom, Archt., 650 Fifth Ave., New York; Maurice J. Sullivan and Briscoe & Dixon, 1701 Second Natl. Bank Bldg., Asso. Archts.

Tex., Munday—First State Bank probably erect \$35,000 building during 1926; brick, stone and concrete, 2 stories, 25x100 ft.; David S. Castle Co., Archts., Abilene.

W. Va., Huntington—Chesapeake & Ohio B. R. Co., T. F. Barton, Gen. Master Mechanic, erect \$75,000 office building at shops.

### Churches

Ark., Fort Smith—Presbyterian Church, Rev. W. L. Gilmore, Pastor, plans \$100,000 to \$125,000 building.

Ark., Fort Smith—Broadway Methodist Church, St. Louis Ave. and Broadway, Rev. Oscar E. Linstrum, Pastor, plans to enlarge present structure or erect new building.

Fla., Jacksonville—First Christian Church, Monroe and Hogan Sts., Rev. J. T. Boone, Pastor, 1722 Main St., plans to rebuild structure noted burned at \$250,000 loss.

Fla., Larkins—Baptist Church, Rev. B. D. Porter, Pastor, plans \$50,000 building.

Fla., Pompano—First Methodist Church plans building. Address the Pastor.

Fla., Tampa—First Christian Church start work in few days on Gothic-type church and Sunday-school, Plant Ave. and DeLeon St.; brick, steel, hollow tile and concrete; cost \$200,000; \$10,000 pipe organ; R. H. Hunt Co., Archts., James Bldg., Chattanooga, Tenn.; J. Knox Taylor, Asso. Archt., Warner Bldg.\*

Fla., West Palm Beach—Memorial Presbyterian Church, South, has permit for \$10,000 temporary frame and stucco building, Olive Ave. and Belvedere Rd., El Cid Park. Address The Pastor.

Ga., Valdosta—First Methodist Church considers erecting \$400,000 building, Patterson and Valley Sts.; 7 or 8 stories; Judge A. J. Little, member official board.

La., Lake Charles—Broad Street Methodist

Church, Rev. R. H. Wynn, Pastor, erect \$150,000 building, Broad and Kirkman Sts.

La., Lake Providence—Grace P. E. Church rejected bids for frame building; call new bids; cost \$25,000; Sam Stone, Jr., Archt., 714 Union St., New Orleans.\*

Mo., Kansas City—Danish Lutheran Church, Seventh St. and Riverview Ave., Kansas City, Kan., purchased site, Olathe Blvd. and Labelle St.; plans building within year. Address The Pastor.

Mo., Kansas City—Roman Catholic Church erect \$150,000 building, 58th St. and Michigan Ave. Address The Bishop.

Mo., Sedalia—Epworth M. E. Church, Rev. Ralph Emerson Hurd, Pastor, erect \$75,000 building.

N. C., Raleigh—Southside Baptist Church, Rev. Chas. H. Hudson, Pastor, excavating for \$40,000 building.

N. C., West Asheville (Station Asheville)—Balm Grove Methodist Church, Rev. J. S. Hlatt, Pastor, plans \$100,000 brick building after plans by Thorpe & Breeze, Charlotte.\*

Okla., Cleveland—First Presbyterian Church, Rev. C. W. Reynolds, Pastor, plans \$10,000 addition; 2 stories, 35x63 ft., brick and stone; Hawk & Parr, Archts., Cotton Exchange Bldg., Oklahoma City.

Okla., Oklahoma City—Wesley Methodist Church, 25th and Douglas Sts., erect \$150,000 addition; Gothic type, brick and Bedford stone, auditorium seat 1200, Sunday school, roof garden, banquet room; Bailey & Alden, Archts., Columbia Bldg.

Okla., Tonkawa—Methodist Episcopal Church, Rev. W. F. Robinson, Pastor, erect brick building; probably cost \$50,000, 3 stories, oak floors, concrete foundation, asbestos shingle or zinc roof; architect not selected.\*

Tenn., Knoxville—Broadway Baptist Church contemplates \$50,000 Sunday school. Address The Pastor.

Tenn., Knoxville—Washington Pike Baptist Church plans \$30,000 brick building. Address The Pastor.

Tenn., Knoxville—Fourth Presbyterian Church, Dr. J. S. Eakin, Pastor, erect \$10,000 Sunday school annex.

Tenn., Memphis—Lamar Heights Presbyterian Church erect building, Young Ave. and Barksdale St.; Gothic type, brick and stone, auditorium to seat 600; Hubert T. McGee, Archt., Madison Ave. Bldg.; Claude Northern, Asso. Archt.

Tenn., Nashville—Belmont Methodist Church plans \$100,000 to \$150,000 building. Address The Pastor.

Tex., Bryan—College Avenue Baptist Church, H. P. Danaby, member Bldg. Comm., plans building.

Tex., McLean—Presbyterian Church erect \$20,000 building; brick, 2 stories, 44x58 ft.; E. F. Rittenberry, Archt., 303 Blackburn Bldg., Amarillo.

W. Va., Martinsburg—Winchester Avenue Christian Church, Rev. R. F. Schumaker, Pastor, plans \$75,000 campaign for building.

### City and County

Ala., Birmingham—City, John H. Taylor, Commr. of Public Safety, erect Five Points fire station adjoining South Highlands School.

Ala., Florence—City rejected bids for jail and fire station; Paul W. Hofferbert, Archt., Hood Bldg.\*

Fla., Kendall—Dade County Board of Commrs., W. Cecil Watson, member, receives bids Dec. 10 for furniture and equipment for home for delinquent and dependent boys and girls, nearing completion.

Fla., Orlando—City has low bid at \$155,947 from Henry J. Howitz for municipal auditorium; plumbing bid, J. J. Kates, 60 E. Church St., \$10,250; electric work; Johnson Electric Co., 20 E. Pine St., \$6449; Krug & Parrish, Archts., 30 E. Church St.\*

Fla., Punta Gorda—City votes about first of 1926 on \$50,000 city hall bonds. Address City Council.

La., Ponchatoula—City, E. D. Parker, Clk., will call election on bonds for city hall, jail and engine house; no definite plans.

Fla., Sebring—Chamber of Commerce interested in erection of comfort station, the Circle.

Ky., Lexington—City having plans drawn by Frankel & Curtis, Hernando Bldg., for \$500,000 city hall and auditorium buildings, Walnut and E. Short Sts.; former 3 stories, 128x50 ft., with 40x60-ft. police dept. annex connected by first and second floor corridors with main section; Roman type, 3 stories, buff brick, rusticated stone base, cornice and balustrade of cut stone, terrazzo and wood

floors, marble wainscoting and ornamental plaster in corridors, Crittall copper-steel casements, vaults, central heating plant in basement, elevator; latter 140x175 ft., 5 double entrance doors, first story rusticated stone, brick with stone trim above, auditorium seat about 1200, balcony 830, gallery 1036; 100x36-ft. stage seating 430, dressing rooms, provision for future installation of pipe organ, exhibit room in basement; movable seats in auditorium; both structures fireproof. Bids for city hall to be opened Jan. 4; plans and specifications from Board of City Commrs.\*

Md., Cambridge—Town Commission authorized \$60,000 bond issue for city hall and engine house, Gay St.

Miss., Hazlehurst—Copiah County Board of Supervisors erect 2 dormitories on convict farm to house inmates of county farm. (Late-ly incorrectly noted under Tex., Dallas.)

Mo., Joplin—Jasper County plans jail. Address County Clerk. (City lately noted as owner.)

Mo., St. Louis—City, care Div. of Parks, 330 Municipal Courts Bldg., erect fireproof brick and stucco locker bldg. and refectory, Forest Park; cost \$120,000 or more, 1 story, 211x94 ft., concrete floors and foundation, tile roof, interior tile, ornamental terra cotta, steel sash and trim, wire glass; date of opening bids on equipment, etc. (\$20,000), indefinite, probably about Feb. 15; items to be purchased include lockers, steel dressing rooms, etc.; Harold E. George, Archt., 330 Municipal Courts Bldg. [See Machinery Wanted—Kitchen and Refectory Equipment; Dining Room Equipment; Flooring (Tile, Mastic, etc.)]\*

Mo., St. Louis—City, care Div. of Parks, 330 Municipal Courts Bldg., has plans and specifications completed for \$25,000 brick stable, O'Fallon Park; 2 stories, 25x75 ft., concrete, wood and wood block floors, concrete foundation, tile roof; bids on equipment, furnishings, etc., opened about Jan. 1; address Board of Public Service; W. H. Worsam and H. E. George, Archts., 330 Municipal Courts Bldg.\*

Okla., Oklahoma City—City erect \$10,000 clubhouse, Lincoln Park; 1 story, brick, composition roof; Bailey & Alden, Archts., Columbia Bldg.

Tex., Lufkin—Angelina County Board of Commrs. receives bids Dec. 15 for jail and courthouse annex; brick, stone and reinforced concrete, fireproof, 3 stories, 49x42 ft., stone trim, steel sash and doors; cost \$60,000; Southern Steel Co., Archt., 4500 S. Presa St., San Antonio.\*

Tenn., Memphis—Shelby County, E. W. Hale, member Board of Commrs., rebuild structures noted burned at workhouse at \$25,000 loss; work started.

Tex., Sulphur Springs—Hopkins County, Geo. C. Stephens, Judge, erect \$40,000 jail; fireproof, brick, reinforced concrete, 2 stories.

Va., Danville—City Council, A. M. Alken, City Atty., probably call for bids in about 1 week for city hall; cost \$400,000, Ionic type, limestone finish, 4 stories and basement, 180x142 ft.; Heard & Chesterman, Archts., Peoples National Bank Bldg., Lynchburg, and Masonic Temple Bldg., Danville.\*

### Dwellings

Ala., Birmingham—Montgomery Real Estate & Insurance Co., 210 N. 21st St., erect dwelling, 101 Munger Ave.; cost about \$10,000.

Ark., Little Rock—Johnson & Dickerson, 2417 Wright St., erect 2 brick veneer dwellings, 2416 Marshall St. and 219 Thayer Ave.

Ark., Little Rock—W. R. Arnold, 1105 Valmer St., erect brick veneer residence, 105 Alpine St.

Ark., Little Rock—Bracy Real Estate & Building Co., Exchange Bank Bldg., erect stucco dwelling, 210 Edgewood Blvd.

Ark., Ozark—Troy Trotter, County Clerk, erect residence, Nickel addition.

Ark., Poplar Bluff—A. W. Greer plans 23 dwellings.

Fla., Clearwater—Everett Trust Co., Indian Rocks Inn, organized and will erect dwelling, Indian Rocks.

Fla., Coral Gables (Branch Miami)—Geo. W. Hooper, Salem, Mass., plans residence.

Fla., Coral Gables (Branch Miami)—Gilbert & Mosley erect \$12,000 dwelling, 801 Avenue Ortega; Phineas E. Paist, Archt.

Fla., Coral Gables (Branch Miami)—W. H. Smith, 1744 S. W. Fifth St., erect residence, 1203 Pizarro St.; Phineas E. Paist, Archt.

Fla., Daytona Beach—C. E. Fuller, 424 S. Ridgewood St., erect \$15,000 residence, 424 S. Ridgewood Ave.

In writing to parties mentioned in this department it will be of advantage to all concerned if the Manufacturers Record is mentioned.

Fla., Daytona Beach—W. W. Benedict erect residence, S. Ridgewood St.; cost about \$10,000.

Fla., Daytona Beach—C. C. Helson, 420 University Blvd., Seabreeze Station, erect 2 dwellings and garages, Peninsula Drive; total cost \$20,000.

Fla., Fort Myers—A. G. McGregor, 353 Lexington Ave., Lexington, Ky., plans number dwellings.

Fla., Fort Myers—W. J. Moore erect residence; W. O. Sparklin, Archt.

Fla., Gainesville—Allan Halle erect \$16,000 Colonial residence; 2 stories, brick veneer; Newbold L. Goin, Archt.; Waldo Hartman, Contr.

Fla., Jacksonville—B. S. Harris erect 2 frame stucco dwellings, 15th St. near Talbot St. and Talbot near 15th; 1 story; total cost \$10,000.

Fla., Miami—L. R. Blackmon, Metropolitan Bldg., erect 4 single dwellings, Tiger-tail Rd., Crystal Bluff; total cost about \$64,000; R. A. Preas, Archt., Real Estate Bldg.

Fla., Miami—D. L. Clark erect \$15,000 residence, 252 S. W. 20th Road.

Fla., Miami Beach—Chas. D. Mack, 327 N. E. 18th St., Miami, erect \$20,000 residence, Hibiscus Island; 15 rooms; Louis D. Brumm, Archt., Avenue Castille, near Avenue Madrid, Coral Gables (Branch Miami).

Fla., Sarasota—E. G. Pyle, Vice-Pres. E. G. Pyle Investment Co., erect \$10,000 residence, Bellevue Terrace.

Fla., Sarasota—Jas. J. Rich erect residence, Kings Highway.

Fla., Sarasota—H. S. Griswold and Ward Caldwell, E. Ave. near 13th St., erect number laborers' dwellings; celutex or sugar cane fiber, waterproof.

Fla., Sebring—T. P. Trammell erect 2 dwellings, Gardenville Drive.

Fla., St. Petersburg—Gasparillo Development Co., M. A. Harris, Resident Mgr., considers organizing company to erect dwellings, Gasparillo Beach and Purver Island.

Fla., St. Petersburg—Edgar Ferdon, 412 Summer Bldg., erect \$15,000 residence and garage, Colonial Ave., near Boca Ciega Circle; 2 stories, 8 rooms; frame.

Fla., St. Petersburg—Roy Starkey erect 2 dwellings and garages, Second Ave., N., near 30th St.; 2 stories, 6 rooms, frame; total cost \$18,000.

Fla., St. Petersburg—Sunshine City Homes Co. erect 2 dwellings and garages, Rio Vista Blvd.; 2 stories, 6 rooms, frame; total cost \$14,000.

Fla., St. Petersburg—Crisp-Clark Building Corp., organized with John H. Lodwick, 22 Florida Arcade, as sec.; erect dwellings.

Fla., St. Petersburg—Shore Acres Construction Co. erect 4 dwellings, Shore Acres; total cost \$24,700.

Fla., Tampa—DeHaven Development Co., 2728 Florida Ave., erect 4 dwellings, 28th and Cherokee Sts., Milder and Hillsboro Aves.; total cost \$27,000.

Fla., Tampa—Isaac Hanan, 421 W. Park Ave., Pres. of company developing Hanan Park and Hanan Estates, erect 15 dwellings.

Fla., Tampa—A. Y. Milam, Crescent Apts., has permit for \$40,000 residence, Biscayne St.

Fla., Tampa—Seminole Lakes Corporation of Florida, Axel Lonquist, Pres., Conway Bldg., 111 W. Washington St., Chicago, Ill., probably erect dwellings and shops in connection with development of small Spanish village on section of former holdings of Tampa Lakes and Country Club Corp., recently purchased.

Fla., West Palm Beach—John Pinover erect 3 stucco dwellings and garages, Plymouth Rd.; total cost \$15,000.

Fla., West Palm Beach—John J. Quinn erect \$10,000 stucco residence and garage, Rugby Rd.

Fla., West Palm Beach—Palm Beach Creamery Co. erect 3 frame duplex dwellings, Okeechobee Rd.; total cost \$10,000.

Ga., Macon—Murphy, Taylor & Ellis, 470 Cherry St., erect at least 6 dwellings, connection with development of Stanislaus subdivision; work to start after Jan. 1.

Ky., Carrollton—Dr. D. C. Bakes erect bungalow, Tenth and Sycamore Sts.

Ky., Ice—Cowan Creek Coal Co. erect several miners' dwellings; contract within 3 weeks.

La., New Orleans—A. S. Nicaud, 2127 Esplanade Ave., considers erecting residence, State Street Drive near S. Claiborne Ave.

La., New Orleans—Pierre F. Donnes, Jr., Archt., 3803 Cleveland Ave., call for sub-bids in about 2 weeks on 6 double and 1 single cottage and store, Josephine St.

La., New Orleans—D. P. Curren, 1443 Calhoun St., convert residence into duplex; additions; slate roof, 2 Arcola heaters, oak floors, tile porch, screening, electric work, plumbing, metal garage; cost about \$10,000; Lockett & Chachere, Archts., 521 Baronne St., have plans ready for bids about 3 weeks.

Md., Baltimore—Oscar W. Homfeldt, 1523 Gorsuch Ave., erect \$15,000 residence and garage, Rogers Ave., near South Bend Rd.; 2½ stories; R. C. Brockmeyer, Archt., 1665 N. Milton Ave.

Md., Baltimore—John Schoenewolf, Pres. National Bank of Baltimore, considers erecting residence, Greenway and Kemble Sts.; nothing definite.

Mo., Kansas City—E. W. Wheelock, 2400 College St., erect 8 dwellings, 5222-28-30-34-36-40-42-46 Brooklyn St.; total cost \$24,000.

Mo., Marshall—St. Peter's R. C. Church, Rev. J. J. Downey, Pastor, erect \$15,000 rectory; 2 stories and basement, oak and concrete floors, concrete foundation, tile roof, hollow tile; H. W. Brickman, Archt., Emporia, Kan.\*

Mo., St. Joseph—Eugene Meier, Archt., Lincoln Bldg., advises plans abandoned for residence for A. L. Gultar.\*

Mo., St. Louis—Joseph Darst Realty Co., 105 N. 8th St., reports sale of 100 lots in Dartsdale to group who will erect small bungalows.

Mo., St. Louis—Mrs. Alma M. Drey erect \$50,000 residence, Ellenwood Ave.

Mo., St. Louis—Dr. Leo F. Marre, University Club Bldg., erect French renaissance type residence, Warren Ave., University Hills sub-division; brick and stucco, steel sash, slate and stone interior trim; Klingensmith, Rice, Wilkens, Archts., Arcade Bldg.

Okla., Tulsa—S. P. Burns, 211 S. Boulder St., erect residence, 801-03 S. Detroit St.; cost about \$10,000.

Okla., Tulsa—Neil G. Grubb, 1341 S. Newport St., erect \$30,000 residence and garage, 1206 Hazel Blvd.

Okla., Tulsa—C. W. Randle erect \$10,000 residence, 1620 E. 19th St.

Tenn., Bristol—J. W. Lester erect brick veneer residence to replace structure lately noted burned; clear oak floors, concrete foundation, exterior tile, roofing undecided. (See Machinery Wanted—Heating Plant; Catalogs.)\*

Tenn., Chattanooga—Dixie Mercerizing Co. will let contract Dec. 16 for 25 cottages. (See Construction News—Textile Mills.)

Tenn., Knoxville—F. T. Fielden Realty Co., 212 W. Vine Ave., erect 6 duplexes, 1700 block White Ave., 3100 block E. Fifth Ave. and Linden Ave. and Chestnut St.; 12 rooms; cost about \$5000 each.

Tex., Corpus Christi—H. G. Sherman, 721 Furman Ave., erect 5-room brick residence.

Tex., Dallas—J. A. Heistell, 1115 Hampton Rd., erect 6 dwellings, 2434-2546-50-2702-10-18 Grafton St.; 5 rooms, frame; total cost \$13,600.

Tex., Dallas—R. C. Stubbs, 1909 Grand Ave., has permit for \$40,000 brick and tile residence, 6223 La Vista St.; 14 rooms.

Tex., Fort Worth—W. C. Timmons, 1317 Clover Lane, erect 7 frame dwellings, 5100-04-08-12-16-20 Locke St.; total cost \$12,000.

Tex., Galveston—Willard R. Cooke, American Natl. Ins. Bldg., erect \$22,000 hollow tile and stucco residence, 45th St. and Avenue T.

Tex., Houston—E. G. Maclay, 1511 N. Boulevard, erect \$25,000 residence, 1511 N. Boulevard, Edgemont addition; 10 rooms, tile and stucco.

Tex., Houston—Dr. John H. Foster, 1306 Walker St., erect \$32,000 Spanish type residence, River Oaks; 2 stories, 11 rooms, tile and stucco; C. B. Schoeppl & Co., Archts., Humble Bldg.

Tex., Houston—John T. Holdner, 3513 Travis St., erect residence, 3244-3250 Huntington Place.

Tex., Houston—H. Zeltzer erect 2 brick veneer dwellings, 2200 block Isabella Ave.; 8 rooms; total cost \$12,500.

Tex., Malakoff—United States Co., care J. G. Puterbaugh, McAllister, Okla., reported ready for bids on 60 frame miners' dwellings; 2, 3 and 4 rooms; Will N. Noonan Co., Archt., Builders Exchange Bldg., San Antonio, Tex.; other work later.

Tex., Merkel—T. G. Braff erect 1-story brick veneer residence.

Tex., San Antonio—Sibyl Brown erect \$10,000 residence, Memorial Drive; 10 rooms.

Tex., Waco—C. S. Appell, 1000 N. 19th St., erect \$18,000 residence, 909 N. 18th St.; 2 stories, 8 rooms, brick veneer.

W. Va., Holden—Island Creek Coal Co., Huntington, erect 165 frame dwellings; total cost \$200,000.

### Government and State

Fla., Coral Gables (Branch Miami)—Phineas E. Paist drew plans for \$10,000 extension to post office, E. D. Brown, Postmaster; 35x40 ft., 15 ft. high.

Fla., Raiford—State, C. W. Hunter, Chmn. Board of Commissioners of State Institutions, Tallahassee, appropriated \$300,000 for new prison bldgs.; probably two 3-story concrete structures for white and negro prisoners, 1-story power plant and 1-story dining-room and kitchen; prison labor; plans tentative.

### Hospitals, Sanitariums, Etc.

Ala., Gadsden—Etowah County Tuberculosis Assn., Dr. C. L. Murphree, member Bldg. Comm., having plans drawn by A. D. Simpson for \$10,000 to \$12,000 building at fresh-air camp, Lookout Mountain

Fla., Daytona Beach—Daytona and Halifax district, F. J. Niver, Chmn. Hospital Coman., selected Wilson, Berryman & Kennedy, Palmetto Bldg., Columbia, S. C.; I. O. O. F. Temple, Raleigh, and Charlotte, N. C., as architects for \$750,000 hospital authorized by Florida Legislature.\*

Fla., St. Petersburg—City, Dr. Ray Davies, Health Commr., considers erecting clinic and municipal hospital for communicable diseases.

Md., Frederick—Frederick City Hospital has \$100,000 gift from Jos. D. Baker, Frederick, and \$50,000 from Chas. M. Shank, Middletown, for 2 wings. Address Dr. T. B. Johnson.

Mo., St. Louis—Board of Public Service, E. K. Kinsey, Pres., City Hall, receives bids Dec. 22 for administration bldg. at Isolation Hospital; letting No. 2311; 4 stories, brick, cost \$286,000; L. R. Bowen, Ch., Engr.; H. Updike, Steam and Elec. Engr., both City Hall.\*

Mo., St. Louis—Citizens' Bond Issue Supervisory Comm. considers proposal to appropriate \$704,000 for additions and new employees' building at City Sanitarium.

Tenn., Knoxville—Rev. J. L. Dance, 2361 E. Fifth Ave., advises Baptist Hospital Board contemplates \$1,000,000 hospital, but nothing definite accomplished except committee appointed; will not build this year.

Tex., Knox City—Knox County having plans drawn by Voelcker & Dixon, 312 Morgan Bldg., Wichita Falls, for \$60,000 sanatorium; fireproof, brick and reinforced concrete.\*

Tex., Marshall—Hospital Assn., M. Turney, member, receives bids Dec. 10 for fireproof hospital; brick, reinforced concrete, 3 stories, 36x96 ft.; cost \$40,000; John Carpenter, Archt., Woolworth Bldg.\*

Va., Farmville—Lions' Club interested in erection of \$180,000 hospital; to sponsor campaign for \$60,000; \$120,000 to be contributed by Commonwealth Fund of New York.

W. Va., Grafton—Grafton-Taylor County Hospital Assn. interested in hospital.

### Hotels and Apartments

Ark., Mount Sequoyah—Mount Sequoyah Improvement Co., Col. H. L. Rammel, Pres., 1622 Center St.; George W. Donaghey, Vice-Pres., 2109 Gaines St., both Little Rock, selected Sieg & McDaniel, Central Bank Bldg., Memphis, Tenn., Archts., for fireproof hotel to cost \$250,000 complete; 3 stories in front, 6 in rear; 75 guest rooms, lobby, mazzanine floor, 2 verandas, barber shop, laundry, servants' quarters, main dining room, 2 private dining rooms, 2 passenger elevators, 1 freight elevator; reinforced concrete superstructure, native stone; rubble exterior walls, stucco finish.\*

Ark., Sulphur Springs—Southwestern Ozark Chautauqua, Mrs. William Bacon, Pres., announced plans for permanent home, plans include erection of \$200,000 hotel by John Brown University Corp., \$50,000 golf course and several state buildings to cost \$25,000 each.

Fla., Coral Gables—Samuel Spector erect \$300,000 3-story, 18-family apartment arcade, Ponce de Leon Blvd.

Fla., Coral Gables—J. P. Smith Realty Co.

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erect \$86,000 3-story, 32-family apartment house on Avenue Santander.

Fla., Daytona—T. W. May, representative of capitalists known as Morgan Syndicate, announced ground will be broken soon after Jan. 15 for \$2,500,000 hotel; Robert Long, Archt.

Fla., Davenport—Summerland, Inc., erect \$100,000, 28-apartment building, Palm and State Sts. and Manatee Ave.

Fla., Daytona Beach—Lester H. Steinem, Washington, D. C., local office with Robins-Waldman Co., Magnolia Ave., reported to erect 350-room hotel first of next year; associated with Frank Russell White, Archt., 1410 G St. N. W., Washington.

Fla., Delray—Delray Properties Co. erect \$25,000 apartment building, Delida Park.

Fla., Fellsmere—Fellsmere Estates Corp. erect \$10,000, 2-story, 29-room rooming house, Fellsmere Blvd.

Fla., Fort Lauderdale—W. W. Bivens erect \$50,000 2-story, 8-family apartment house, N. W. Third St.

Fla., Fort Lauderdale—James Reilly erect \$25,000, 2-story, 2-family apartment house, Ponjola St.

Fla., Fort Pierce—Interstate Hotel & Development Co. erect \$350,000, 6-story hotel, Easter Ave. and Second St., contain 11 apartments and 192 guest rooms.

Fla., Indrio—C. L. and L. T. Van Valkenburgh reported to erect 86-room hotel, Fifth Ave. and Michigan St., to cost between \$550,000 and \$600,000.

Fla., Jacksonville—I. A. Dionne, owner of St. Cloud Hotel, 1950 Laura St., erect \$15,000, 2-story, brick addition.

Fla., Little River—W. Chandler erect \$25,000, 3-story, 6-family apartment house.

Fla., Marianna—Corcoran Interests, Chicago, Ill., and Birmingham, Ala., in conjunction with Chamber of Commerce, completed arrangements for erection of 76-room, 4-story, fireproof hotel to cost \$450,000 complete; Warren, Knight & Davis, Archts., Empire Bldg., Birmingham.

Fla., Miami—Davenport & Rich Investment Co., 214 N. E. Second Ave., erect \$25,000, 1-story, 34-room rooming house, N. E. 33rd St. and Thir dAve.; Hampton & Ehmann, Archts., Congress Bldg.

Fla., Miami—Ellis & Bohn, Inc., erect \$18,000, 2-story, 8-family apartment house, S. W. First St. and 28th Ave.

Fla., Miami—Apartment Development Co. erect \$25,000, 2-story, 4-family apartment house, Ave. Mendoza and LeJeune Road, in Anderson Park.

Fla., Miami—Clyde Steamship Line, Municipal Docks, erect \$20,000 barracks, N. W. 11th St. and Sixth Ave., to house 144 dock workers.

Fla., Miami—Commercial Bank & Trust Co., 128 N. E. First Ave., erect \$25,000, 2-story, 4-family apartment house, Ave. Zamora, in Anderson Park.

Fla., Miami—George Gaynor Hyde, Archt., Lorraine Arcade, preparing plans for 40-room hotel in Del Verde.

Fla., Miami—Rock Park Development Corp., M. D. McConnell, Pres., Florida Resales Exchange, Halcyon Hotel Bldg., reported to erect \$1,000,000 hotel. (See Land Development.)

Fla., Miami—Sutherland-Allen Corp., Newark, N. J.; 3 apartments, Miami-Biltmore section. (See Buildings Proposed—Bank and Office.)

Fla., Miami—Thomas R. Humphrey erect \$45,000, 3-story, concrete block, 18-unit apartment house, 429 S. W. Eighth Court; J. C. Gault, Archt., Commercial Arcade.

Fla., Miami Beach—George Gaynor Hyde, Archt., Lorraine Arcade, Miami, completed drawings for \$150,000, fireproof, 3-story hotel, Michigan Ave. and Fifth St., for E. S. Rosenthal and I. Wolf; arcade through ground floor faced with 35 stores, 40 guest rooms and lobby above.

Fla., Monticello—H. L. Titus purchased lot, reported to erect hotel.

Fla., Mt. Dora—Detroit & Florida Highlands, Inc., Walter S. Darden, 725 First Natl. Bank Bldg., Detroit, Mich., reported to erect 100-room hotel. (See Land Development.)

Fla., Okeechobee—E. C. Wolfe erect \$15,000, 2-story, 5-family apartment, Osceola Ave. and Seventh St.

Fla., Panama City—Saint Andrew's Bay Community Hotel Corp. has plans by G. Lloyd Preacher, Healey Bldg., Atlanta, Ga., opens bids Dec. 4 for \$500,000 8-story, 100-room hotel, Fifth St. and Jenks Ave.\*

Fla., Punta Gorda—W. E. D. Payne and associates purchased property in Charlotte Harbor; planning erection of \$300,000 hotel.

Fla., Sarasota—Adair Realty & Trust Co., Forrest Adair, Atlanta, Ga., and Sarasota, has consent of City Council for Adair & Senter, Contrs., Atlanta and Sarasota, to make first fill-in extension of water front; start work in about 3 months on \$1,000,000 15-story, 200-room hotel, on proposed fill.\*

Fla., St. Petersburg—Dixie Holding Co., 214 J. Bruse Smith Bldg., erect \$70,000, 2-story apartment building, 13th Ave. North.

Fla., St. Petersburg—Ray Holmes Co. erect \$70,000, 16-apartment building, Tenth Ave. North.

Fla., St. Petersburg—John W. Weinigel announced plans for erection of apartment building.

Fla., Tampa—Seminole Lakes Corp. of Florida, Axel Lonnquist, Pres., Conway Bldg., 111 W. Washington St., Chicago, Ill., has plans in progress by Benjamin Marshall, 700 E. Walton Place, Chicago, for combination hotel and golf club. (See Land Development.)

Fla., Tampa—A. B. Darling and others erect \$30,000 apartment house, 508 S. Westland St.

Fla., Tampa—C. E. Sine, 6611 Central Ave., erect \$18,000 apartment house, Palmetto Ave.

Fla., Tavares—Committee of local citizens successfully completed drive for subscriptions for erection of \$250,000, 4-story hotel, overlooking Mt. Dora; C. J. Sipple, 324 Fayette Bank Bldg., Lexington, Ky., promoting project, announced plans probably include theater and stores.

Ga., Savannah—J. Perry Stoltz, owner of Fleetwood Hotel, Miami Beach, Fla., advises in regard proposed hotel: "Only in preliminary stage at this time."\*

Ga., Thomasville—Commodore J. Perry Stoltz, owner of Fleetwood Hotel, Miami Beach, Fla., reported considering erection of tourist hotel.

Ga., Tifton—Overstreet Investment Co., State Bank Bldg., Orlando, Fla., purchased 200-ft. frontage on Love Ave.; reported considering erecting hotel on site.

Ky., Carrollton—Hockenbury System, Inc., Harrisburg, Pa., completed survey for proposed hotel. Address Chamber of Commerce.

Ky., Louisville—Max Rozil erect \$10,000, brick veneer apartments, 118 E. Burnett St.

Miss., Gulfport—Justin G. Turner, 77 W. Washington St., and Charles H. Kaplan, 130 N. Wells St., Chicago, Ill., purchased Raynor Hotel, erect 2 additional stories and remodel interior.

Miss., Gulfport—Vincent V. Smith, Jr., Archt., preparing plans for \$150,000, concrete framework, 24-efficiency apartment building to be built on co-operative plan.

Mo., Humansville—D. N. Lightfoot, owner of Humansville Hotel, will rebuild.

Mo., Kansas City—J. E. Dunn, 3710 Jefferson St., erect \$10,000, 2-story apartment house, 2306-8 E. 20th St.

Mo., Kansas City—B. L. Hoffman, 223 E. Ninth St., purchased property, Main St. and 44th St., reported to erect business building with 6 or 7 story apartment section, \$200,000.

Mo., Kansas City—E. P. Haworth, 3657 Summit St., erect \$25,000, 2-story apartment house, 19-21 E. 30th St.

Mo., Sedalia—Hotel Committee of Chamber of Commerce announced plans for 6-story hotel building, S. E. cor. Fifth St. and Ohio Ave. and hospital building; John H. Bothwell has made offer of \$180,000.

N. C., Elizabeth City—C. R. Pugh, C. O. Robinson and others promoting erection of 100-room hotel, to cost from \$400,000 to \$500,000, for which campaign for subscription of stock will soon start; Hockenbury System, Inc., Harrisburg, Pa., made survey; Chamber of Commerce promoting.\*

Tenn., Knoxville—W. C. Terry, 325 N. Clinch St., erect \$40,000, 3-story, 30-room bachelor apartment building, Riverside Drive in Maplehurst Park.

Tex., Dallas—J. R. Zimmerman, 2515 Madera St., erect addition and remodel residence, 4637 San Jacinto St., into 12-apartment house; \$15,000.

Tex., Dallas—Fred E. Stone, 1008 Canty St., erect \$20,000, 32-room, brick veneer, 8-apartment house, 643-5 N. Winnetka St.

Tex., Dallas—G. W. Works, 5435 Vickery Blvd., erect five \$2500, 6-room, frame, 2 apartments, 4600 to 4607 Bryan St.

Tex., Denton—Clyde Godwin has option

on residence on S. Locust St.; will erect 3-story hotel if city gives \$15,000 bonus.

Tex., Houston—James E. Smith, Turnbow Bldg., erect \$17,000, 2-story, brick veneer, four 5-room apartment house, 4603 Clay St.

Tex., Houston—H. L. Bracey erect two brick, 4-apartment houses, Hyde Park Heights on Westheimer Road; \$24,000.

Tex., Houston—N. F. Tower erect \$12,000, frame and brick veneer, 4-apartment house, W. Clay Ave.

Tex., Houston—Jesse H. Jones, Bankers Mortgage Bldg., opened bids for erection of \$100,000, 3-story, 90-room, reinforced concrete, brick and hollow tile apartment building, Elgin Ave. and Fannin St.; James Ruskin Bailey, Archt., 1606 Main St.; Pearson & Ellis, low bidder at \$86,000.

Tex., Mineral Wells—Chamber of Commerce considering proposition by T. B. Baker of Baker Hotels, Inc., 1400 Commerce St., Dallas, for erection of resort hotel to replace Crazy Wells Hotel, destroyed by fire.

Tex., San Antonio—H. C. Thorman, 125 E. Travis St., has plans in progress by Phelps & DeVees, Gunter Bldg., for 10-story, brick, stone and reinforced concrete efficiency apartment building, Broadway.

Va., Hopewell—GeGorge Theodorre announced plans for reconstruction and remodeling of Berkeley Hotel, on Broadway.

Va., Virginia Beach—Neff & Thompson, Archts., Seaboard Bank Bldg., opened bids for erecting Virginia Beach Hotel; Baker & Brinkley, low bidders at \$885,700, Dickson Bldg., both Norfolk; George B. Post & Sons, Archts., 101 Park Ave., New York; N. D. Maher, 1124 Second St., S. W., Roanoke, chmn. of committee.\*

Va., Warrenton—Herman E. Ullman, owner of Warren Green Hotel, plans extension.

W. Va., Bluefield—W. E. Ross, Jefferson St., erect apartment house on Preston St.; J. O. Mitchell, Brodmann Bldg., Contr. for excavation.

### Miscellaneous

Ark., Sulphur Springs—Southwestern Ozark Chautauqua. (See Buildings Proposed—Hotels and Apartments.)

Fla., Coral Gables—George E. Merrick, Administration Bldg., owner and developer of Coral Gables, announced \$10,000,000 development program; includes proposed 1000-room hotel on Biscayne Bay, \$3,000,000 to \$5,000,000 de luxe watering place, to be known as Bay Biscayne Casino, fishing club and resort on upper Metacumbe Key, International Yachting and racing club, society theater.

Fla., Daytona—Charles F. Burgman, 220 N. Beach St., erect \$10,000 terminal pavilion on waterfront at end of Volusia Ave., to be dedicated to city; S. H. Goce, Archt., Orange Park, Daytona.

Fla., Frostproof—Babson Park Golf & Yacht Club plans erection of \$100,000 clubhouse and enlargement of 9-hole golf course to 18 holes.

Fla., Key Largo—Key Largo Club Properties, Inc., Charles S. Baxter, Vice-Pres. and Treas., has plans in progress by George Gaynor Hyde, Lorraine Arcade, Miami, for \$150,000 hotel and clubhouse building.

Fla., Miami—George Gaynor Hyde, Archt., Lorraine Arcade, preparing drawings for \$50,000 clubhouse for American Athletic Assn. in Del Verde.

Fla., Miami—Rock Park Development Corp., M. D. McConnell, Pres., Florida Resales Exchange, Halcyon Hotel Bldg., reported to erect \$1,000,000 hotel, churches, school and public buildings in connection with development. (See Land Development.)

Fla., Orlando—W. C. Campbell, of Lovett Co., announced plans for clubhouse on Nela Isle.

Fla., St. Petersburg—Woman's Club, Mrs. C. H. Hawley, Chmn., of Finance Committee, 939 Beach Drive, N., soon launch bond issue of \$100,000 for erection of clubhouse.

Fla., Tarpon Springs—George Innes, Jr., has subscribed \$5000 to building fund, which will exceed \$100,000, for erection of Innes Art Memorial Building, Innes Park; site donated by J. N. Farmer.

Ga., Atlanta—Atlanta Athletic Club, Scott Hudson, Pres., plans rebuilding East Lake Clubhouse, burned at \$250,000 loss.

Ga., Bainbridge—Bainbridge Woman's Club, Mrs. A. B. Conger, Pres., plans erection of club building.

Ky., Lexington—Lexington Country Club, J. Will Stoll, Pres., First and City Natl.

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Bank Bldg., will rebuild main building recently burned; \$50,000.

Mo., Kansas City—Convent—Catholic diocese of Kansas City, care Bishop Thomas F. Lillis, purchased tract N. E. cor. 71st and Oak Sts.; plans to erect convent.

Mo., St. Louis—Engineers' Club of St. Louis, 3817 Olive St., J. L. Hamilton, Pres., inaugurated campaign for funds to finance erection of \$400,000, 5-story building, 3651 Washington Blvd.; include auditorium to seat 550; plans and specifications complete; also include offices.

Mo., St. Louis—Eliz Gergely and Emmie Niclas purchased through Karm & Gaffney, realtors, Shubert-Rialto Bldg., 160-acre tract near White River, Stone County, reported planning to erect rest home to contain 60 rooms with kitchenettes.

N. C., Goldsboro—Woman's Club plans to erect clubhouse to cost between \$35,000 and \$40,000.

Okla., Medicine Park—Medicine Park Club, care Howard Mitchell, has preliminary plans in progress by Harry Reynolds, 140 Terminal Arcade Bldg., Oklahoma City, for \$100,000 2-story and basement, 50-room, native stone and timber inn; power house, cottages, golf course, riding stables and hotel to be built later.

S. C., Gaffney—Cherokee County Fair Assn., J. B. Johnston, Sec., plans to purchase grounds and erect permanent buildings.

Tenn., Chattanooga—Chattanooga Manufacturers' Assn., W. O. McCord, 815 Broad St., plans new lighting system and other improvements.

Tenn., Memphis—Good Will Chapter, 562 N. 5th St., has completed plans for \$13,200 home, Illinois and E. Indiana Sts., on lot donated by Mrs. John W. McCall.

W. Va., Huntington—Huntington Tourist Camp Assn., T. A. Cavendish, Pres. Board of Directors, 9 Ferrell Court, plans erection of community house at West Virginia Tourist Camp, Virginia Ave. and W. 17th St.

### Railway Stations, Sheds, Etc.

Fla., Cocoa—Florida East Coast Rwy. Co., H. N. Rodenbaugh, Ch. Engr., St. Augustine, reported to erect passenger depot near city limits of Cocoa and Rockledge.

Miss., Canton—Illinois Central Railroad, F. L. Thompson, Ch. Engr., Chicago, Ill., reported, to erect new passenger station; consist of 3 buildings connected by arcades; main building for passenger service, express office and lunch counter.

Mo., Kansas City—Chicago, Rock Island & Pacific Ry. Co., C. A. Morse, Ch. Engr., Chicago, Ill., receiving bids for erection of 40x260-ft. freight house.

Tex., Fort Worth—Texas & Pacific Rwy. Co., E. F. Mitchell, Ch. Engr., Dallas, reported to erect addition to station for post-office department.

### Schools

Ala., Anniston—W. A. White, Supt. of City Schools, opens bids Dec. 15 for erecting Grade School building; plans and specifications may be had from Mr. White.\*

Ala., Birmingham—Board of Education has plans in progress by Warren, Knight & Davis, Empire Bldg., for \$70,000 negro school, Ninth St. and Ninth Ave.\*

Ala., Birmingham—Jefferson County Board of Education, 746 N. 21st St., receive bids until Dec. 14 for erecting following schools: Leeds, McElwain, Warrior and additions to Corner, Shades Cahaba and Inglenook; Inglenook plans and specifications may be had from Bem Price, Archt., Age-Herald Bldg.; remaining plans and specifications from Denham, VanKeuren & Denham, Archts., Age-Herald Bldg.\*

Ala., Huntsville—Board of Education retained R. H. Hunt of R. H. Hunt Co, Archts., James Bldg., Chattanooga, Tenn., as Const. Archt. for proposed buildings.

Ala., Vocation—Coley-Bleackshear School, Dr. J. M. Shofner, Pres., plans to erect administration building, home for superintendent and president and office building.

Ark., Arkadelphia—Ouachita College Board of Trustees, W. N. Adams, Chmn., plans construction of concrete stadium.

Fla., Clearwater—Pinellas County Board of Public Instruction probably call election in Rio Vista School District on bonds for erecting \$40,000 grammar school.

Fla., Clearwater—Pinellas County Board of Public Instruction, R. S. Blanton, Supt., announced tentative plans in progress by M. Leo Elliott, Citizens Bank Bldg., Tampa, for

schools included in \$1,275,000 expansion program; Wm. B. Ittner, Board of Education Bldg., St. Louis, Mo., probably draw final plans.\*

Fla., Daytona Beach—School Board, J. F. Eastham, Supt., authorized Harry W. Griffin prepare plans for 3-story, \$100,000, 24-room science building on Daytona High School grounds, Bay St.; William J. Carpenter, De Land, Archt. for 12-room, \$100,000, 2-story, grade school, Volusia Ave. and Second St.; two \$100,000, 2-story, 12-room primary schools included in program.\*

Fla., Jay—Santa Rosa County Board of Public Instruction, Milton, has plans in progress by S. J. Welch, Pensacola, for \$40,000, 2-story, 147x127-ft. brick school building; R. B. Hobbs, County Supt.

Fla., Tampa—Hillsborough County Board of Public Instruction probably call \$60,000 bond election in Lake Magdalene District, for fireproof, 8-room and auditorium school building.

Ga., Atlanta—Emory University building committee, care Asa G. Candler, Sr., authorized immediate construction of \$100,000 building, to be used temporarily as auditorium, later to become first unit of dining hall and cafeteria; 50x120 ft., 2 stories, brick and concrete, with exterior finish of Georgia marble; Dr. Harvey W. Cox, Pres.; Ivey & Crook, Archts., Candler Bldg.

Ga., Waynesboro—Waynesboro School District reported voted \$75,000 bonds for new school. Address Board of Trustees.\*

Ky., Hazard—Perry County Board of Education, Supt. Napier, reported to erect 6 school buildings.

Ky., Hindman—Knott County Board of Education reported to erect 3 school houses.

Fla., Lake City—School Board, Col. J. B. Hodges, Chmn., plans \$175,000 bond election for enlarging High School and primary buildings and new negro school.

Fla., Riviera—Palm Beach County Board of Public Instruction, Joseph Youngblood, Supt., West Palm Beach, announced erection of new building and conversion of auditorium of grade school into 12 classrooms.

Ga., Folkston—Folkston School District plans to vote on bonds for erecting \$50,000 school. Address Charlton County Board of Education.

Ky., Louisville—Southern Baptist Theological Seminary received gift of \$20,000 from late Dr. Thomas E. Mitchell, Columbus, Ga., for erection of dormitory unit in building program.

Ky., Marrowbone—Prof. Strange, principal of school, and Mr. Miller, cashier of Marrowbone Bank, on committee appointed to estimate cost and draw plans for high school building, provided by \$12,000 gift by G. Norris, Louisville and Cumberland County citizens.\*

La., New Orleans—Dr. A. B. Dinwiddie, Pres. of Tulane University, announced construction of football stadium; engineering department soon start preliminary survey; plans in progress by Emile Well, Whitney Bldg.

La., New Orleans—Orleans Parish School Board, A. J. Tete, Sec., receives bids until Dec. 11 for school building in square bounded by St. Philip, Marais, Villere and Ursuline Sts.; plans and specifications at office Supv. Archt. School Board, City Hall Annex.

La., Shreveport—Edward F. Neild, Archt., 1206 City Bank Bldg., advises in regard to proposed St. John's College and church buildings: "Construction postponed until next year."

La., Shreveport—Caddo Parish School Board authorized E. F. Neild, Archt., Merchants Bldg., prepare plans for \$75,000, concrete and steel stadium at C. E. Byrd High School, to seat 5000; let contract about Dec. 1.\*

Miss., Hattiesburg—Sunrise School District probably vote on bonds for brick school building. Address J. C. Gay, Forrest County Supt. of Education.

Mo., Cape Girardeau—Board of Education will sell Broadway Public School building and site; use proceeds in plans for new building in west end and for additions to 2 schools.

Mo., De Soto—Board of Education receives bids until Dec. 15 for High School building; plans and specifications from Martin Laubis, Archt., Poplar Bluff.

Mo., Kansas City—St. Teresa Parish Church has plans in progress for parochial school, 58th St. and Michigan Ave.; Bishop Thomas L. Lillis plans to erect permanent church and school buildings for St. Peter's Church.

Mo., Mexico—City voted \$300,000 bonds

for new High School and other improvements. Address Board of Education.\*

Mo., Parkville—Park College Board of Trustees announced gifts amounting to \$500,000 for program of expansion; Dr. F. W. Hawley, Pres.

N. C., Henderson—Vance County Board of Education plans to erect \$50,000 consolidated school in Sandy Creek township.

Okla., El Reno—Board of Education opened bids for erecting High School addition; Cowan Brothers, low bidder at \$112,515 for entire building; Layton, Hicks & Forsyth, Archts., Braniff Bldg., Oklahoma City.\*

Tenn., Monterey—School Board plans to erect \$60,000 school building.

Tenn., Nashville—Montgomery Bell Academy, Harding Rd., John Early, Pres. of Board of Directors, reported to rebuild structure recently burned at \$44,000 loss.

Tex., Amarillo—W. A. McIntosh, Supt. of Schools, contemplates erecting \$200,000, brick and reinforced concrete High School building.

Tex., Beaumont—St. Anthony Parish Catholic congregation has plans in progress by A. Babin, 15 Blanchette Estate Bldg., for \$100,000, 3-story, brick, stone and reinforced concrete parochial school.

Tex., Breckenridge—Board of Education, James G. Harrell, Sec., selected W. G. Clarkson & Co., 606 First Natl. Bank Bldg., Fort Worth, prepare plans for \$100,000, brick, stone and reinforced concrete ward school.

Tex., Corsicana—City, J. S. Murchison, Mayor, voted bonds, including \$150,000 for schools. Address Board of Education.\*

Tex., Dallas—C. A. Jay, Pres. of Dallas Vocational School, 2419 1/2 Commerce St., announced erection of Graphic Arts Building.

Tex., San Antonio—Board of Education receives bids until Dec. 16 for \$250,000 South Side Junior High School, Yorkshire Place and Berkshire Ave.; Phelps & DeWees, Gunter Bldg., and Altee B. & Robt. M. Ayres, Bedell Bldg., Asso. Archts.\*

Tex., San Antonio—Board of Education contemplates erecting \$50,000, concrete and steel stadium at Schwab Field.

Tex., San Benito—San Benito Independent School District, G. C. Jones, Supt. of Schools, plans \$125,000 bond election for following work: Four-room addition to South Ward; remodel Senior High for use as Junior High, and erect new Senior High.

Tex., Snyder—Snyder Independent School District voted \$75,000 school bonds; address Board of Trustees.

Va., Staunton—School Board receives bids until Dec. 14 for erection of \$200,000 to \$225,000, 192x107-ft. High School building, 21 classrooms, gymnasium and auditorium; Wm. B. Ittner, Archt., Board of Education Bldg., St. Louis, Mo.; T. J. Collins & Sons, Asso. Archts., Staunton.\*

Va., Urbanna—Rev. Edmund Lee Woodward, 110 W. Franklin St., Richmond, announced plans for proposed \$25,000 gymnasium at Christ Church School.

### Stores

Ala., Birmingham—W. F. Russell erect \$20,000, 2-story, brick store building, Avenue F, Ensley.

Ala., Tuscaloosa—Abe Brown, Prop. of Brown's Dollar Store, plans to replace present building with 3-story and basement, brick structure.

Ark., Mammoth Spring—T. H. Morris, Pres. of Mammoth Spring Hardware Co., erect building, Third and Main Sts.

Ark., Marianna—W. S. McClintock purchased Bank of Commerce building, let contract to Jennings & Samuel to raze; will replace with 2 or 3-story building.

Ark., Mount Ida—G. S. Bearce erect 2 store buildings.

Fla., Arcadia—R. B. Taylor, Louisville, Ky., purchased property; reported to erect business building, Oak and Brevard Sts.

Fla., Bowling Green—John M. Altman has plans in progress by H. G. Little, Wauchula, for \$25,000 store and office building, built-up roof, concrete floors and foundation, hollow tile, plaster board, steel sash and trim.

Fla., Largo—W. McKee Kelley Co., 659 Central Ave., St. Petersburg, soon start work on Pittsburg Arcade; brick, cement and hollow tile construction; M. Leo Elliott, Archt., Citizens Bank Bldg., Tampa.

Fla., Miami—William Matlack erect \$25,000, 2-story, 4-store room and 6-apartment building, N. E. 62nd St. and First Court.

Fla., Miami—Gotto, Garretson, Mathias Co., 100 N. E. Second Ave., erect 2-story store and apartment building, N. W. 36th St.

In writing to parties mentioned in this department it will be of advantage to all concerned if the Manufacturers Record is mentioned.



Fla., Palm Beach—C. W. Copp erect \$10,000, stucco furniture store building, Okeechobee Road.

Fla., St. Petersburg—J. B. Green, 649 Central Ave., erect \$12,000, 1-story, concrete and tile store building, 1819 Central Ave.

Fla., Tampa—Seminole Lakes Corporation of Florida, Axel Lonnquist, Pres., Conway Bldg., 111 W. Washington St., Chicago, Ill., shops. (See Buildings Proposed—Dwellings.)

Ga., Atlanta—Sam Massell of Massell Realty Co., 43½ Peachtree St., announced plans for erection of \$50,000 commercial building, 198 W. Peachtree St.

Ga., Savannah—Slotin & Co., 407 W. Broughton St., contemplates erecting 4-story brick building, W. Broad and Broughton Sts.; Levy, Clarke & Bergen, Archts., Liberty Bank & Trust Bldg.

Ky., Blackey—W. V. Walters erect store house; contract at once.

Ky., Louisville—Clifford F. Reichert, Archt., Starks Bldg., purchased property at 625 W. Jefferson St. and 106 S. Fourth St.; plans erection of studio building and remodeled store and office building.

La., Shreveport—C. W. Lane, Giddens-Lane Bldg., and N. W. Marston, Ardis Bldg., have completed plans by Clarence W. King, 901 Giddens-Lane Bldg.; soon let contract for \$80,000, 3-story and basement, 65x105 ft., brick, stone and reinforced concrete fireproof building, Market and Crockett Sts., for Lee-Baker Dry Goods Co., 116 Texas St.\*

Miss., Columbia—Kingsbury & Robertson planning to erect brick structure on site of burned building.

Miss., Jackson—Claude H. Lindsley, Archt., Lamar Life Bldg., receives bids until Dec. 15 for \$75,000 store building for Rice Furniture Co., E. Capitol St.

Mo., Kansas City—Louis Katz purchased S. W. cor. 21st and Harrison Sts., erect 2-story, brick stores and apartment building.

Mo., St. Louis—Oscar F. McKnight, Pres. of McKnight Tailoring Co., 513 Locust St., purchased 3-story building, S. E. cor. Sixth and Pine Sts.; will remodel.

N. C., Asheville—Hugh LaBarbe, 155 Chestnut St., erect \$30,000, 2-story building, Lexington Ave.

N. C., Asheville—Mary and Francis Cox, Cedarcliff Rd., will expend \$10,000 for remodeling Reynolds Building on Patton Ave., leased to Charles Stores Co., Inc.

N. C., Charlotte—Belk Brothers, W. H. Belk, Pres., will let contract next month, start excavation about Jan. 1 on 5-story addition to department store on E. Trade St.; C. C. Hook, Archt., 638 S. Church St.\*

N. C., Durham—H. L. Goodall, Pres. of Peabody Drug Co., take bids Dec. 15 for \$50,000, 2-story and basement, 70x110-ft., concrete store and warehouse building, Pettigrew St.; cement and composition floors, concrete foundations, hollow tile, interior tile, metal doors, ventilators, ornamental terra cotta, rolling partitions, steel sash and trim, wire glass, 1 freight elevator, 2 dumb-waiters; major items to be purchased include sprinkler system, lockers and shelving; open equipment and furnishings bids about Feb. 1. Milburn-Helster Co., Archts., First National Bank Bldg., Durham, and Union Savings Bank Bldg., Washington, D. C.\*

Okla., Tulsa—Gens Cash Stores, 230 E. 15th St., soon have plans by Marshall C. Cross, 16 Nebraska Bldg., for 2-story and basement, brick, stone and concrete, 69x40 ft., semi-fireproof store and warehouse building.

Tenn., Knoxville—B. H. Sprankle, 422 W. Union Ave., considering erection of \$100,000 2-story store and office building, adjoining Sprankle Building now under construction at Walnut and Union Aves.

Tex., Dallas—U. G. Orendorff, Canton, Ill., plans rebuilding of 6-story building, Elm and Jefferson Sts.

Tex., Houston—Bender Brothers taking bids for \$40,000, 1-story, 125x132-ft., brick and hollow tile store building, Main St. and Pease Ave.; tar and gravel roof, cement floors, concrete foundation, hollow and interior tile, ventilators, ornamental terra cotta, steel sash and trim, wire glass; C. D. Hill & Co. and J. W. Dehnert, Asso. Archts., both Kress Bldg.\*

Tex., Houston—J. L. Jones, Cotton Exchange Bldg., has completed plans by J. W. Northrop, Jr., West Bldg., for 2-story, brick, tile and concrete store building, 612 Preston Ave.

Tex., Houston—C. H. Moore, 4721 Washington St., erect \$11,000, 9-room, frame store building, 3543 Michaux St.

Tex., Lubbock—Butler Co., Archts., 201-2

Wilson Bldg., revising plans; soon take new bids for \$35,000, 2-story and part basement, brick and stone store and rooming house.

Tex., Orange—Sokolosky Brothers, Beaumont, have completed plans by Livesay & Wiedemann, 607 San Jacinto Life Bldg., Beaumont, for \$30,000, 2-story, 66x140-ft., steel, brick and tile store building.

Tex., Temple—A. Slocovich purchased lot and burned building, First St. and Avenue A; plans to replace with brick structure.

Va., Richmond—Tanner Paint & Oil Co., 1413 E. Main St., remodel building.

Va., Richmond—McCrary Stores, Inc., plans repairs to building, 427 E. Broad St.; \$18,000.

### Theaters

Fla., Eustis—Chamber of Commerce announced erection of open-air theater in lake front park; 40-ft. stage with Spanish-Egyptian background; band shell, rest rooms, etc.

Fla., Punta Gorda—Chidester & Johnson erect \$30,000, 45x87-ft. Plaza Theater building to seat 650 people; remodel old building for offices and apartments.

Fla., St. Petersburg—Elmer Ermatinger, 121 18th Ave. N., planning erection of 10-story theater and office building; negotiating with theater circuit for lease of first 3 floors.

Ga., Albany—Gortatowsky Brothers expect to start work Jan. 1 on \$215,000 theater building and arcade on Farkas Estate; R. A. Benjamin, Archt., Brisbane Bldg., Jacksonville, Fla.

Miss., Jackson—R. E. Kennington purchased 161-ft. frontage on W. Capitol St.; plans to erect theater and stores.

Mo., Kansas City—Midland Theater & Realty Co., 20th and Walnut Sts. (See Buildings Proposed—Band and Office.)

## BUILDING CONTRACTS AWARDED

### Association and Fraternal

Tenn., Chickamauga—Charles Martel Commandery, Knights Templar, let contract to Stewart Construction Co., Feger Bldg., Chattanooga, for \$40,000 lodge building; 3 stories.

Tex., Marshall—Ancient Free & Accepted Masons started foundation of fireproof brick temple; 2 stories; W. H. Morrow, Constr. foreman.

### Bank and Office

Ala., Greenville—Bank of Greenville let contract for \$45,000 brick, stone, frame and concrete building to Hugger Brothers Construction Co., Shepherd Bldg.; 1 story and mezzanine, 40x80 ft., marble, tile and concrete mastic floors, concrete foundation, tin roof, metal doors, vaults, steel sash and trim; heating, electric work and plumbing not let; Okel & Cooper, Archts., Bell Bldg., both Montgomery. (See Machinery Wanted—Vault Doors).\*

Fla., Bushnell—County Abstract & Title Co. erect for \$20,000 office building, Blake St.; brick, 1 story, 45x60 ft., foundation for 2 additional stories; Bollin & Martin, Contrs., Ocala.

Fla., Wauchula—J. B. Brown opened bids for office and apartment building, Main St. and Dixie Highway; cost \$35,000; concrete and stucco, 2 stories, 72x36 ft., concrete and wood floors, built-up roof, concrete foundation; furnishings, equipment, etc., \$4000; items to be purchased include beds, equipment for 7 apartments, plumbing and electric supplies; Little & Bradford, Archts.

Fla., Tampa—Tampa Electric Co., Tampa and Cass Sts., started work on \$85,000 office building; Frost Construction Co., Contr.

Ga., Waycross—Ware County Light & Power Co., H. A. Nell, Mgr., let contract to T. J. Darling for remodeling building, Pendleton St., for offices.

N. C., Burnsville—Citizens Bank of Yancey erect \$50,000 bank building; furnishings, equipment, etc., \$25,000; brick and limestone, mezzanine; vaults, safety deposit boxes; Beacham, LeGrand & Gaines, Archts., Medical Bldg., Market St., Asheville; Burleson & Laws Construction Co., Contr., Johnson City, Tenn.

### Churches

Fla., Valparaiso—Community Church started work on building; A. P. Kastler, Archt.-Constr. Supervisor.

Mo., Moberly—George W. Sparks erect \$200,000 motion picture theater.

Tex., Corpus Christi—R. & R. Gulf Amusement Co., H. H. Elliott, Mgr., purchased property on Chaparral St.; reported planning to erect \$100,000 theater to seat 1800.

### Warehouses

Ark., Little Rock—Bolz Cooperage Corp., foot of Lincoln Ave., plans to rebuild 2 warehouses burned at \$25,000 loss.

Fla., Orlando—United Markets Co. erect \$20,000 warehouse addition, N. Orange Ave.

Ga., Waycross—J. K. Larkins, Hoboken, Pres. of warehouse company, and S. G. Coleman, in charge of erection of tobacco warehouse; bids received.

Md., Baltimore—J. W. Crook Stores, 415 Guilford Ave., reported planning erection of \$500,000, 4-story warehouse on Calverton Road, at Pennsylvania R. R. freight station.

Okla., Oklahoma City—J. K. Keaton erect \$25,000 warehouse, 307 E. California St.

Tex., Amarillo—J. H. Bishop receive bids in about 2 weeks for \$35,000, 2-story and basement, brick and mill, 100x140-ft. warehouse; reinforced concrete foundation, cement and wood floors, built-up roof, metal doors, ventilators, wire glass, steel sash and trim, 400-lb. freight elevator; J. Roy Smith, Archt., 310-11 Blackburn Bldg.\*

Tex., Fort Worth—Harkrider-Keith-Cook Co., 1801 Jones St., has permit for frame repairs to warehouse, 17th and Jones Sts.; \$25,000.

Tex., San Antonio—Crane Co., care Max Krueger, Elizabeth Rd., receiving bids for 2-story and basement, 100x150-ft., reinforced concrete and brick warehouse and office building, Houston and Chestnut Sts.; August A. Herff & Co., Archts., San Antonio Loan & Trust Co. Bldg.; W. E. Simpson, Engr., Natl. Bank of Commerce Bldg.

Ga., Macon—Christ P. E. Church, Ralph T. Birdsey, Chmn. Bldg. Comm., let contract at \$85,000 to A. C. Sanford, Shepherd Bldg., Montgomery, Ala., for parish house; plumbing and heating, W. C. Burns, Maysville, Ga.; Lockwood & Poundstone, Archts., Forsyth Bldg., Atlanta; Dunwoody & Oliphant, Asso. Archts., 460 Broadway.\*

Ga., Macon—Vineville Methodist Church, T. J. Stewart, Chmn. Bldg. Comm., let contract to Batson-Cook Co., West Point, Ga., for \$110,000 building, Forrest and Vineville Aves.; heating, O'Pry Plumbing & Heating Co., 163 Cotton Ave.; electric wiring, Macon Electric Co., 367 Second St.; plumbing, F. X. Daly Plumbing Co., 613 Poplar St.; Greek Doric type, limestone; Dunwoody & Oliphant, Archts., 460 Broadway.\*

Okla., Oklahoma City—Crestwood Baptist Mission, Rev. J. A. Huff, Pastor, erecting \$10,000 stucco building, 1709 N. Villa Ave., 60x45 ft.

Mo., St. Louis—Rt. Rev. J. J. Glennon let contract to F. H. Leibinger, 4103 Wyoming St., for \$150,000 Missouri red granite church, 3221 Oak Hill St., for Holy Trinity Parish; 1 story, 75x140 ft., composition slate roof, steam heat; Ludewig & Dreisoerner, Archts., 3543 Humphrey St.

Mo., St. Louis—S. & S. Electric Co., 4632½ Delmar Blvd., has electric work contract for \$116,000 West Park Baptist Church building under construction; plumbing, Henry Doerner Plumbing Co., 2701 S. Broadway; Hoerner, Baum & Froese, Archts., N. W. cor. Grand and Laclede Aves.; Wm. MacDonald Construction Co., Contr., Syndicate Trust Bldg.\*

Mo., St. Louis—Southwest Baptist Church, 6313-15 Scanlan Ave., let contract at \$26,757 to Wm. T. Smith & Sons, 4619 Macklind Ave., for brick and stone building; 2 stories, 58x67 ft., pine and other floors, composition roof; concrete foundation being laid; L. Baylor Pendleton, Archt., 119 N. Seventh St.\*

N. C., High Point—Green Street Baptist Church erecting \$100,000 building by day labor; brick, 3 stories, 90x135 ft., rift pine floors, composition roof; furnishings, equipment, etc., \$15,000 to \$20,000; Herbert L. Cain, Archt., Grace Securities Bldg., Richmond, Va.

Tex., Dallas—East Grand Avenue Baptist Church, T. D. Wallace, Chmn. Bldg. Comm., 5102 Fairview St., let contract for \$40,000 building to L. H. Lacy Co., 2632 Swiss St.; brick, stone, steel and frame, 3 stories and mezzanine, 55x92 ft.; Ferrand & Fitch, Archts., 701 Slaughter Bldg.\*

In writing to parties mentioned in this department it will be of advantage to all concerned if the Manufacturers Record is mentioned.

Tex., Georgetown—First Baptist Church erect \$30,000 brick and concrete building by day labor; 2 stories and sub-story, 66x84 ft., concrete and wood floors, concrete pile foundation, tar and gravel roof, hollow tile, metal ceilings, ventilators, rolling partitions; C. H. Leinbach, Archt., Deere Bldg., Dallas. Address J. D. Hall, Georgetown.\*

Va., Portsmouth—Craddock Methodist Church, A. S. Seeley, Chmn. Bldg. Comm., let contract to R. M. Price Co., 209 Tazewell St., Norfolk, for remodeling and erecting additions to building; parsonage.

### City and County

Fla., Fort Myers—Lee County, J. F. Garner, County Clk., let contract to M. T. Reid Construction Co., for 1-story courthouse annex; F. J. Kennard, Archt., 111 S. Edison St., Tampa.\*

N. C., Hendersonville—Henderson County Board of Commrs. let contract at \$45,340 to Southeastern Construction Co., 210 W. Second St., Charlotte, for jail; wiring, Conduit Co., High Point; heating also let; Benton & Benton, Archts., Fidelity Bldg., Wilson.\*

Okla., Boise City—Cimarron County let contract at \$59,975 to S. S. Strong, Laverne, for courthouse; metal lumber frame, brick walls, 3 stories, 57x112 ft., concrete foundation, Johns-Manville roof, hollow tile, metal ceilings and doors, vaults, vault lights, ventilators; electric work and plumbing in gen. contract; heating, New Mexico Heating & Plumbing Co., Clayton, N. M., and Plainview, Tex., \$4900; Parker & Crawford, Archts., Amarillo. (See Buildings Proposed—Building Material.)\*

Tex., Houston—City erect \$10,000 fire station, Eastwood; plans by A. W. Dowdy, City Archt.; work started.

Tex., Marshall—Quisile & Andrews, 2212 W. Seventh St., Fort Worth, has sub-contract from Southern Steel Co., 4500 block S. Presa St., San Antonio, to erect \$45,500 jail for Harrison County; John Carpenter, Archt.\*

Tex., Groesbeck—City erect \$41,000 city hall; 2 stories, 42x90 ft., brick; contract let. Address City Council.

### Dwellings

Fla., Coral Gables (Branch Miami)—Butler Construction Co. erect \$15,000 dwelling, San Vicenta St., Riviera section; 9 rooms, 2 baths; H. H. Jordan, Archt., N. W. 19th Terrace, Miami; owner builds.

Fla., Coral Gables (Branch Miami)—W. B. Ector, 544 N. W. Fifth St., Miami, erect \$10,000 residence, 920 Avenue Marianna; A. W. Coote, Archt.

Fla., Coral Gables (Branch Miami)—A. F. Weber Construction Co. erect \$25,000 dwelling, 812 Alhambra Circle; 2 stories, 8 rooms, 2 baths; H. Geo. Fink, Archt., Congress Bldg., Miami.

Fla., Coral Gables—Dr. Henry Wettstine erect \$10,000 residence, 1300 Avenue Obispo; Co-operative Architects Service, Archt.; J. W. Proctor, Contr., 319 N. W. 22nd St., Miami.

Fla., Coral Gables (Branch Miami)—Atlantic Coast Builders, Inc., erect 9 dwellings, blocks 230 and 231 Portillo and Talavera Sts., 1 story; total cost \$108,000; A. B. Chananle, Archt., Calumet Bldg., Miami; Matthew F. Quinn, Inc., Contr.

Fla., Coral Gables (Branch Miami)—L. R. Patterson, 1120 N. W. Fourth St., Miami, erect \$25,000 residence, 2616 Granada Blvd.; 2 stories, 7 rooms; Colby & Son, Contr.

Fla., Coral Gables (Branch Miami)—Myers Y. Cooper Co., 409 Union Trust Bldg., Cincinnati, O., has permits for 3 dwellings, Riviera section; cost \$32,000 each; M. S. Wyeth, Archt.\*

Fla., Coral Gables (Branch Miami)—E. E. Dammers, Mayor, erect 2 dwellings, Alhambra Circle; cost \$17,000 each; C. B. Deer, Archt.; Hemmings Construction Co., Contr.

Fla., Coral Gables (Branch Miami)—Jos. Kresse, Laidlaw Bldg., erect 40 dwellings, Riviera section; 15 under construction; concrete block and stucco, 1 and 2 stories, oak floors, concrete foundation; total cost \$600,000; Robt. Weed, Archt., 328 N. E. Second Ave., Miami; Geo. E. Batcheller, nfc., Contr., Laidlaw Bldg.\*

Fla., Coral Gables (Branch Miami)—Plainfield Realty & Investment Co. erect 2 dwellings, 1207-11 Country Club Prado and 1544 Avenue Sopera; total cost \$30,000; A. F. Schimek, Archt.; S. Hansen Co., Contr., Laidlaw Green.

Fla., Coral Gables (Branch Miami)—Leon H. Howe, Inc., 930 W. Flagler St., Miami, erect 100 dwellings; laying concrete foundations for 25, Country Club and Riviera sec-

tions; concrete block and stucco, 2 stories, 8 rooms, oak floors, Cuban tile roofs, cost \$20,000 each; items to be purchased include lumber, cement, plumbing, electric work, roofing, plastering; H. L. Vernelson, Archt.\*

Fla., Sarasota—Blaine H. Vlier, 200 Pineapple Ave., erect minimum of 50 dwellings, connection with development; Canty & Lydell, Constr. Engrs., Main St.; Ricketts & Haworth, Contrs., Pineapple Ave.; Mr. Brundage, Landscape Archt.

Fla., Fort Lauderdale—John M. Brennan & Son, Cleveland, O., and Teskey Bros., Toronto, Canada, have contracts for number of dwellings, Chateau Park; cost \$5000 to \$7500 each; total expenditure \$500,000. Louis G. Sigloch, Jr., and Chas. H. Johnson, Archts., both Miami, Fla.

Fla., Fulford—Florida Cities Finance Co. erect several additional Spanish type dwellings; owner builds.

Fla., Gainesville—Col. J. C. Adkins erect \$12,500 residence, the Highlands; 2 stories, stucco on frame, 2 baths, lavatory, hot water heat; Newbold L. Goin, Archt.; Henry Milner, Contr.

Fla., Gainesville—Dr. M. H. DePass erect \$12,775 residence; 2 stories, stucco on frame, 2 baths, hot water heat, lavatory; Newbold L. Goin, Archt.; Gus Hessel, Contr.

Fla., Gainesville—Dr. Arthur Esslinger erect \$10,750 Colonial residence; brick veneer, composition shingle and tin roof, tile terraces and bath, hot water heat; Newbold L. Goin, Archt.; Gus Hessel, Contr.

Fla., Haines City—Leon H. Watson, Inc., 2264 S. W. Tenth St., Miami, and Tampa, Fla., and Asheville, N. C., started work on 10 dwellings as first unit of 100, Golf Grounds Estates; Spanish type; E. G. Pick, Tampa representative.\*

Fla., Hialeah—Gene Sarazen let contract to P. J. Davis Co., Calumet Bldg., for \$10,000 residence, Gratiigny Rd.; 1 story, 5 rooms, oak floors, tile roof; A. Robt. Chananle, Archt., Calumet Bldg.; plumbing, Alex B. Orr, 45 N. W. Third St., all Miami.\*

Fla., Jacksonville—M. Savitz, 1638 Boulevard, erect \$10,000 residence and garage, Lydia Ave. near James St.; 1 story, stone; I. Edelstein, Contr.

Fla., Lake Wales—Irving T. Bush, care Bush Terminals, Foot 43d St., Brooklyn, N. Y., erect \$100,000 Spanish type residence.

Fla., Lake Wales—Henry M. Crane, 44 W. 44th St., New York, erecting \$50,000 residence.

Fla., Lake Wales—Jas. W. DeGraff, Easthampton, L. I., erecting \$35,000 residence.

Fla., Lake Wales—Thos. Williams, 930 Park Ave., New York, erecting \$50,000 residence.

Fla., Lake Wales—J. E. Zimmerman, care Day & Zimmerman, 16th and Walnut Sts., Philadelphia, Pa., erecting \$50,000 residence.

Fla., Miami—Irons Land & Development Co., 151 E. Flagler St., erect 50 dwellings, High Pines addition, Section A, Irons Manor.

Fla., Miami—Baker Construction Co., subsidiary of Baker Tile & Roofing Co., care Davenport & Rich, 214 N. E. Second Ave., erect 20 dwellings, Westwood Heights, in units of 4; total cost \$140,000.

Fla., Miami—L. H. Jacobson started work on residence, S. Moorings Way, Moorings subdivision; Spanish type, 2 stories.

Fla., Miami—Domingo J. Milford, Cuban Consul, Key West, erect \$30,000 residence, N. Miami Ave. near 58th St.; Cayetano Freixas, Archt., Havana, Cuba; J. Allan Turner, Contr.

Fla., Miami—H. John Meacher, 23 N. E. First Ave., erect \$18,000 residence, N. E. 56th St. and Sixth Ave.; J. K. Construction Co., Contr.

Fla., Orlando—Mrs. Jessie J. Branch, 12 E. Livingston St., erect \$10,000 residence, Pine and Court Sts., Lewter's Sunshine Park.

Fla., Sarasota—Humbold & Donaldson Building Co., Forest Lake (Branch Oak Park), Ill., and Rockford, Ill., erect 6 dwellings, Braeburn subdivision.

Fla., Sebring—C. L. Brooks, Miami, Fla., and Gordonstown St., Savannah, Ga., erect Spanish and Moorish type dwellings; purchased 21 lots; owner builds.

Fla., St. Petersburg—Henry S. Duncan, 1625 Bay Rd., Miami Beach, let contract for \$40,000 residence, Booth Point; Spanish type, stucco.

Fla., St. Petersburg—S. V. Schooley, 2030 N. Shore Drive, erect 11 dwellings, Snell Isle; cost \$90,000 to \$160,000 each; foundations completed for five.

Fla., St. Petersburg—Franklin Realty Co.

erect residence, Franklin Heights; cost \$10,000; also erect additional dwellings; Eric Clausen, Contr., 21 Harper Circle W.

Fla., Tampa—Guaranty Building Corp. erect number of dwellings, Maryland Manor; E. O. Bayerl, 3536 College Ave., Kansas City, Mo., in charge of constr.

Fla., Tampa—Lehr-Wall Construction Co., L. F. Lehr, Pres., Malone Paper Co., Malone, N. Y., president, reported to erect 1000 dwellings, Tampa Beach; 500 within year; total cost \$7,000,000.

Fla., Tampa—Hallam-Thomas Realty Co. let contracts for 10 dwellings, Whiteway Terrace subdivision, Nebraska Ave.

Fla., Tarpon Springs—United States Realty Co., V. L. Aylor, Local Mgr., erecting number dwellings.

Fla., Tarpon Springs—Darlington Development Co. erecting dwellings as demand warrants; cost \$4000 to \$20,000 each, 1 or 2 stories, various sizes, hardwood and wood block floors, plaster board, asphalt shingle, metal shingle, etc., roofs; items to be purchased include dimension lumber, roofing, sash, doors, brick fireplaces, etc.

Fla., Williston—J. J. Urchuch let contract for \$6000 dwelling, Hill Crest; erect additional dwellings.

La., Baton Rouge—J. B. Nalty let contract at \$20,800 to Albert Tolle, Hammond, for residence; R. S. Soule, Archt., 429 Carondelet St., New Orleans.

La., Lake Charles—R. E. Krause let contract at about \$60,000 to P. Olivier & Sons, Inc., for 114 Bilbo St., for brick and stucco residence; 2 stories; R. S. McCook, Archt., Frank Bldg.

Md., Baltimore—Rosebud Building Co., Inc., Equitable Bldg., erect 16 brick dwellings, 2600-30 W. Franklin St.; 2 stories; total cost about \$38,000; Fredk. E. Beall, Archt., 306 St. Paul St.; owner builds.

Md., Baltimore—Alexander Baliko, 518 Belair Rd., erect 6 dwellings, Elinore Ave. near Glenmore Ave.; 1½ stories, frame; Mr. Hack, Archt.-Contr., Fullerton.

Md., Baltimore—J. Raymond Gerwig, 213 St. Paul Place, erect \$15,000 residence, Overhill Rd., near Woodside Rd.; 2 stories, cinder block and stucco; Bernard Evander, Archt., 27 W. North Ave.; owner builds.

Md., Baltimore—Wm. A. Fisher, 715 Park Ave., let contract to Thos. Hicks & Sons, 106 W. Madison St., for \$40,000 residence, Blythwood; 2½ stories, 58x102 ft., brick, slate roof, hot water heat; Parker, Thomas & Rice, Archts., Union Trust Bldg.\*

Md., Baltimore—C. Emory Mitten, 2303 Arunah Ave., erect \$10,000 frame residence, 719 Wilmans Way; 2 stories, 30x49 ft., slate roof, hot water heat; C. W. Littleton & Son, Archts.-Contrs., 4313 Liberty Heights Ave.

Md., Baltimore—Emma M. Cook erect 9 dwellings, N. side Montpelier St. and Frisby Sts.; 2 stories, brick, slag roofs; total cost \$18,000; Herbert C. Aiken, Archt., 2101 N. Calvert St.; H. E. Cook, Contr., 414 Lake Ave.

Md., Baltimore—Bowling Construction Co., Patapsto Ave. and Shirley St., erect 6 frame dwellings, E. side Seven Mile Lane near Williamson St.; 2 stories; total cost \$36,000; Stanislaus Russell, Archt., 11 E. Lexington St.; owner builds.

Md., Baltimore—Milton R. Lerch, 5206 Harford Rd., erect 20 frame dwellings and garages, St. Henrys Ave. near Harford Rd.; 2½ stories, 26x32-ft. and 20x20-ft., slate roofs, hot water heat; total cost about \$70,000. Geo. Wessel, Archt., 3001 Lytleton Rd.; owner builds.

Md., Baltimore—Geo. C. Thomas, New Amsterdam Bldg., erect \$32,000 brick residence, Wickford and Overhill Rds.; 3 stories, 24x35 ft., slate roof; Cyril H. Hebrank, Archt., 3 E. Lexington St.; owner builds.

Miss., Lexington—Dr. R. M. Stephenson erect 6-room bungalow; W. A. Harthcock, Contr.

Miss., McComb—Malcolm Stokes erecting residence; Netterville Contracting Co., Contr.

Miss., McComb—Will Stokes erecting residence; Netterville Contracting Co., Contr.

Mo., Clayton (Ind. Branch St. Louis)—Wm. P. Reader, 5456 Maple St., erect \$13,000 residence, Fair Oaks; frame and brick, 65x40 ft.; Julius A. Kuhn, Contr., 4042 Flora St., St. Louis.

Mo., Clayton (Ind. Branch St. Louis)—John W. Reilly, 6624 Alamo St., erect \$13,500 residence, Moorlands; brick, 31x37 ft.; Henry A. Wagner, Archt.-Contr., 112 N. Bemiston St., St. Louis.

Mo., Clayton (Ind. Branch St. Louis)—Dr. C. A. Vosburgh, 5398 Pershing St., erect

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\$15,000 residence, Fair Oaks Estate; frame and brick, 51x75 ft.; M. Boulicault, Archt., Buder Bldg.; J. A. Kuhn, Contr., 4042 Flora St., all St. Louis.

Mo., Kansas City—W. T. Grant, Pres. Business Men's Assurance Co., Gates Bldg., erecting Colonial residence, 1241 W. 58th St., Country Club district; shingle; Edw. W. Tanner, Archt., 6410 Washington St.

Mo., St. Louis—P. E. Briscoe, 4048 Russell St., erect \$10,000 residence, 4237 Flora St.; brick, 2 stories, 34x35 ft., tile roof, hot water heat; G. P. Wuest, Archt., 922 Wainwright Bldg.; A. H. Haeseler Building & Construction Co., Contr., 621 Wainwright Bldg.

Mo., St. Louis—N. E. Lewald, 1219 Amherst Place, erect \$12,000 residence, 6025 Cabanne St.; brick, 2 stories, 34x26 ft., slate roof, hot-water heat; W. P. Manske, Archt.; W. H. Cunliff, Contr., both 410 N. Euclid Blvd.

Mo., St. Louis—Holdaway Construction Co., International Life Bldg., erect 3 frame dwellings, 3524-28-32 O'Meara St.; 1 story, 23x35 ft., wood roofs, hot air heat; total cost \$12,000; plans and construction by owner.

Okla., Oklahoma City—J. W. Pugmore erect \$12,000 brick veneer residence; Bailey & Alden, Archts.; C. F. McElvina, Contr., Norman; reinforcing and structural steel, J. B. Klein Iron & Foundry Co., Oklahoma City.

Tex., Abilene—J. McAllister Stevenson let contract at \$28,000 to Glenn G. Lamson for reinforced concrete, brick and hollow tile residence; 2 stories and full basement, 50x60 ft., oak and concrete floors, reinforced concrete, Ludowici Celladon tile roof, interior tile, ventilators; heating, electric work and plumbing not let; Nichol & Campbell, Archts.\*

Tex., Gainesville—John Stobaugh started work on bungalow near Gainesville; Woolbridge Lumber Co., Contr.

Tex., Houston—J. G. Anderson erecting \$10,000 residence, 4125 Woodleigh Ave.; 2 stories, 8 rooms, brick veneer; J. E. Smith, Contr.

Tex., Houston—L. W. Babbitt & Co., Chronicle Bldg., erect brick veneer dwelling, 1918 Danville St.; 2 stories, cost about \$10,000; plans and construction by owner.

Tex., Houston—Dr. Graves erect \$42,000 residence; Wm. Ward Watkin, Archt., Scanlan Bldg.; Pearson & Ellis, Contrs.

Tex., Houston—W. A. Henry has contract for 7 dwellings, Eigel, Inker and Reinerman Sts.; 5 rooms, frame; total cost \$21,000.

Tex., Houston—G. F. Howard, 1638 Harold St., erect \$10,000 residence, 1928 Portsmouth Ave.; 2 stories, 6 rooms, frame and stucco; Bell Construction Co., Contr., 3511 McKinney St.

Tex., Houston—J. W. Lander, 1405 Holman St., started work on 2-story brick veneer residence, Prospect Ave.

Tex., Houston—Lightfoot-Bolton Construction Co., 3103 Main St., erecting 2 duplexes, 1525 Sul Ross and 1308 Fairview Aves.; 2 stories, 8 and 12 rooms, brick veneer and frame; total cost \$23,000.

Tex., Houston—M. B. Traweck, 2818 Baldwin St., erect 3 dwellings, 1300 block Reinerman St.; 5 rooms; total cost about \$10,000; Ira Nix, Contr., 204 Tuam St.

Tex., Lubbock—Herbert Stubbs erect 6 Spanish type dwellings, Palmer St., in addition to 6 brick dwellings under construction, College Ave. and Crockett St., all Ellwood Place.

Tex., San Antonio—Michel Malos, 324 Idaho St., erect 14 dwellings, Highland Blvd.; frame, built-in features; total cost \$80,000; day labor.

Tex., San Antonio—H. C. Thorman, 125 E. Travis St., reported, purchased 50 lots, Broadway near Brackenridge Park; erect dwellings, apartments, etc.

Tex., San Augustine—U. D. Lynch erecting 2-story brick veneer residence; W. F. Cotton, Contr., Dallas.

Tex., Waco—A. C. Patton, 411 Austin Ave., erect brick veneer residence, 2400 Colcord Ave.; 2 stories, 8 rooms; Birch D. Easterwood, Archt., 614 Liberty Bank Bldg.; N. A. Palmer, Contr., 2122 Columbus Ave.\*

Tex., Wichita Falls—W. Daniel starting work on \$30,000 brick veneer residence; 2 stories, oak floors, concrete foundation, clay tile roof; Jerry M. Schaefer, Archt., Staley Bldg.; Carr & Blakemore, Contrs., McClurken Bldg.; electric work, People's Electric Co., 725 Wall St.; plumbing, C. A. Kaufman, 400 Burnett St.; brick work, R. W. Oakley, 2113 Polk St.\*

Va., Richmond—Muhleman & Kayhoe, Inc., 108 N. 9th St., erect 7 dwellings, 3500 and

3600 blocks, Grove Ave.; cost \$12,000 each, brick, 2½ stories, 22.6x40 ft., oak floors, brick foundations, slag, gravel and tile roofs, tile baths; hot-water heating to T. E. Beckner, 419 W. Broad St.; electric work, W. H. Jenks, 621 E. Main St.; plans and construction by owner.

### Hospitals, Sanitariums, Etc.

Ky., Lexington—Opelka Temple, A. A. O. N. M. S., let contract to J. T. Jackson Lumber Co., Belt Line and Price Ave., for \$60,000 to \$75,000 hospital for crippled children, Harrison Ave., in rear of Good Samaritan Hospital; stucco and tile, 1 story, stone foundation; Frankel & Curtis, Archts., Herndon Bldg.; Hentz, Reid & Adler, Consult. Archts., 92½ Forsyth Bldg., Atlanta, Ga.\*

Miss., Laurel—Mississippi Charity Hospital, Dr. R. H. Foster, Supt., let contract to McArthur & McLeMore for repairing nurses' home recently burned; cost about \$17,000, brick and hollow tile, 2 stories, wood floors, tile roof; heating, electric work and plumbing not let; furnishings, equipment, etc., purchased. Address Contr. or P. J. Krause, Archt., both Meridian.\*

Tex., Austin—State Board of Control, S. B. Cowell, Chmn., let contract at \$35,030 to Richard Schmidt, 76 Rainey St., for dormitory and occupational therapy building at Austin State Hospital for insane; W. E. Ketchum, Archt., Pope Bldg.\*

Va., Winchester—Winchester Memorial Hospital let contract at \$22,427 to F. O. Trump, Kearneysville, W. Va., and J. W. Rosenberger & Co., Inc., Winchester, for nurses' home; Stuart H. Edmonds, Archt.; excavation and concrete work lately noted let.\*

### Hotels and Apartments

Fla., Fort Lauderdale—Leggett Construction Co., Inc., erect \$25,000 2-story, 8-family apartment house, Croissant Park.

Fla., Jacksonville—Applebrook Hotel Co. let contract to Southern Ferro Concrete Co., Atlanta, Ga., for 12-story and basement, reinforced concrete frame, limestone, brick and terra cotta exterior, 124x105 ft. hotel building, 45 W. Adams St.; terrazzo, marble, tile flooring, reinforced concrete spread footing foundation, hollow tile, interior tile, metal ceilings, metal doors, vaults, mail chutes, ventilators, vault lights, ornamental terra cotta, wire glass; O'Pry Heating & Plumbing Co., 163 Cotton Ave., Macon, Ga., heating and plumbing; Sam Donaldson, 101 Marietta St., Atlanta, electric lighting; Otis Elevator Co., 29 E. Harris St., Atlanta, 2 passenger, 1 service and 1 freight elevator; Thompson, Holmes & Converse, Archts., 101 Park Ave., New York.\*

Fla., Miami—Ralph A. Preas, Archt., Real Estate Bldg., preparing plans for 4-family apartment house, S. W. 15th St. and 20th Ave., for Owen L. Carr Construction Co.; \$17,000, 2 stories.

Fla., Miami—Miami Real Estate & Building Co., 38 N. E. Second Ave., erect \$25,000, 2-story, 8-family apartment house, N. W. 33rd St. and Third Ave.

Fla., Miami—W. H. Avery erect concrete block, 8-unit apartment house, 175 S. E. 12th St.; E. H. Ehmman, Archt., Congress Bldg.; Ross Parsons, Contr.

Fla., Miami—Shaw Construction Co., Metropolitan Bldg., erect \$40,000, 2-story, 4-family apartment house, 31st St., Santa Clara subdivision; F. W. Woods, Archt.

Fla., Miami Beach—Miami Beach Bay Shore Co., Lincoln Road, let contract to Struck Construction Co., Clay and Franklin Sts., Louisville, Ky., for 8-story, 250-room, concrete frame, hollow tile walls employees' hotel, Meridian and Dade Sts.; gypsum partitions, concrete and tile flooring, concrete and piles foundation, tile and composition roof, hollow and interior tile, metal doors; Wm. F. Brown, Archt., Collins Ave.

Fla., Miami Beach—Shepard & Davenport let contract to Dickens & Knapp for two \$20,000 four 4-room apartment houses, Second St. and Meridian Ave.; W. F. Brown, Archt., 516 Collins Ave.

Fla., Sarasota—W. A. Barrow, Yonkers, N. Y., broke ground for \$60,000, 16 four-room apartment house in Indian Beach estates.

Fla., St. Petersburg—Frank B. Mills and John L. Landis, 714 Central Ave., started work on \$300,000, 3-story apartment house, Locust St. and 13th Ave.; Spanish type, exterior finished in stucco ornamented by stone and iron; Olin H. Round and Lester Avery, Archts., 2 Roser Bldg.

Fla., St. Petersburg—George F. Young, 213

Sumner Bldg., has permit for \$200,000, 3-story, tile and steel hotel building, Central Ave. and 28th St.; 56 rooms and 9 stores; W. B. Ferguson, Contr.

Fla., Tampa—Isaac Hanan, 421 W. Park Ave., announced construction started on 12 six-family apartment houses and 15 homes, costing about \$1,000,000, in Hanan Park and Hanan Estates.

Fla., West Palm Beach—D. F. Dunkle and G. W. Bingham let contract to J. S. Willson for \$30,000, 2-story, 75x88-ft. building, 23rd St. and N. Poinsettia Ave.; storerooms on first floor, 12 hotel rooms above.

Md., Baltimore—One Hundred University Parkway Apartment Corp., William G. Nolting of Wyatt & Nolting, Archts., Keyser Bldg., Pres., let contract to Consolidated Engineering Co., 20 E. Franklin St., for \$1,000,000 9-story and basement, brick with limestone trim apartment house, University Pkwy. and Canterbury Road; 2 passenger elevators, contain 74 suites.

Mo., St. Louis—Wm. H. Smith-Nelson Cunliff Co., Buder Bldg., erect \$300,000, 10-story apartment building, 3438 Russell Blvd.; W. M. Mills, Archt., Chemical Bldg.; owners build.

Mo., St. Louis—A. Mayer, 4608 Gravois St., erect three 2-story, brick, 34x46-ft. tenements, 6310-2-4-6-8-20 Arsenal St., \$24,000, gravel roofs, hot air heat; H. Mayer, Archt., 4608 Gravois St.; owner builds.

Mo., St. Louis—M. Poppler, 3310 Ohio St., erect two 24x38-ft., brick tenements, 6030-6 Carlsbad St.; \$13,000, composition roofs; owner is Archt. and Builder.

Mo., St. Louis—R. R. Rosemond, 5342 Quincy St., erect two \$10,000, 2-story, brick, 34x52-ft. tenements, 4011-15 Potomac St.; tar and gravel roofs, hot air heat; owner is Archt. and Builder.

Mo., St. Louis—V. Rowe, 3129 N. Grand, let contract to J. C. Mueller & Son, 3129 N. Grand, for four 2-story, brick, 27x48-ft. tenements, 4859-65 Kossuth St.; \$31,200, tile roofs, hot air heat; Nolte & Nauman, Archts., 615 Fullerton Bldg.

Mo., St. Louis—Dr. S. Vezeau, 3202 Park St., erect \$18,000, 3-story, 38x40-ft., brick tenement, 2816 S. Grand, composition roof, steam heat; O. J. Popp, Archt., Arcade Bldg.; owner builds.

Mo., St. Louis—J. Casby, 4576 Newberry St., let contract to V. A. Chinberg, 808 Chestnut St., for \$10,000, 2-story, 34x41-ft., brick tenement, 2616 Clara St.; composition roof, hot air heat; O. J. Popp, Archt., Arcade Bldg.

Mo., St. Louis—Hodiamont Investment Co., Central Natl. Bank, let contract to A. DeBenedetty, 3300 Lucas Hunt Road, for \$35,000, 3-story, brick, 46x49-ft. tenement, 6102-6 Gambleton Pl. and 1175-87 Hodiamont St.; concrete roof; Corrubia-Henderson, Archts., Arcade Bldg.

Mo., St. Louis—H. Wildenauer, 3853 S. Compton St., let contract to Keller Construction Co., 510 Tower Bldg., for \$10,000, 25x45 ft., 2-story, brick tenement, 5512 Millentz St.; gravel roof, hot air heat; F. Gutting, Archt., 4500 Virginia St.

N. C., Greensboro—Capt. J. W. Fry, Pres. of Greensboro Bank & Trust Co., announced abandonment of plans to erect \$1,400,000 17-story bank and hotel building, Washington and Elm Sts., for which Joe W. Stout & Co., Sanford, had general contract. (See Buildings Proposed—Bank and Office).\*

Tenn., Centerville—Frakes Brothers, Columbia, has contract for heating and plumbing in Horton Hotel, now being improved.

Tex., Hereford—W. M. Cogdell, owner of Cordova Hotel, let contract for \$35,000, 75x34 ft., 2-story, 20-room and lobby addition; W. C. Townes, Archt., Old Postoffice Bldg.\*

Tex., Oak Cliff—Leon Fechenbach acquired 150x130-ft. tract; reported to erect 75-room hotel.

Tex., San Angelo—McBurnett Hotel Co., care S. A. Naylor, let contract to J. H. Reddick, Kennedy Bldg., Fort Smith Ark., at \$86,750 for 84-room annex to Hotel St. Angelus; Roy E. Lane, Archt., Chamber of Commerce Bldg., Waco. (Reported incorrectly at Tex., Angelo).\*

Tex., San Antonio—H. C. Thorman, 125 E. Travis St., apartments, etc. (See Contracts Awarded—Dwellings.)

### Miscellaneous

Fla., Coral Gables—Paul Chalfin designed 300 individual bath-houses to be erected at Cocoplum Beach, by Thompson-Starrett Co., Avenue Anastasia.

Fla., Dade City—George Gillespie has contract for \$23,000 Woman's Club House in

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Congress Park addition, ground space 80x50 ft., tea room 18x36 ft., 1 story, stucco; equipment not yet contracted for; major items to be purchased include chairs and tables for tea rooms, chairs for auditorium; A. Roberts, Archt., Pasadena.

Fla., Longwood—Seminole Jockey Club, care Stephen S. Steinmetz, Akron, Ohio, started work on \$300,000 stables and grandstand; cement foundations, 3-ply felt roofing, 280x100-ft. grandstand; Arche Ranny, Conslt. Engr., Longwood.\*

Fla., Titusville—Hanna Construction Co. has contract for 1-story, stucco exterior clubhouse at Whispering Hills golf course.

Tex., Brownwood—McInnes & Son let contract to Will Hood for \$40,000, 2-story, brick, 30x120-ft. funeral home.

Tex., Waco—W. F. Barnett, Mgr. of Methodist Orphanage, let contract to Ainsworth Construction Co. for 1-story, fireproof Children's Home; Dave Meers, plumbing; Milton W. Scott, Archt., 412½ Franklin Ave.\*

Tex., Wichita Falls—Wichita Falls Day Nursery let contract to Taylor Brothers, 302 Oak St., at \$25,000 for 1-story, fireproof Children's Day Nursery, metal tile or clay tile roof, composition and wood floors, concrete foundation, main building 66x90 ft., wing 40x60 ft.; address proposals to Kiwanis Club; heating and plumbing not awarded. L. E. Hedges, conduit electric lighting; Charles J. Pate, Archt., City National Bank Bldg.\*

Va., Richmond—Mr. and Mrs. Alexander Weddell started work on building on Windsor Farms, to be replica of Sulgrave Manor, Warwick Priory, England; majority of materials from England; 3 stories, 75x170 ft., stone, brick and cement; to be occupied as residence and museum of Virginia Historical Society; Henry G. Morse, Archt., 101 Park Ave., New York; construction by Allen J. Saville, Inc., 605 Electric Bldg.

### Railway Stations, Sheds, Etc.

Ala., Mobile—Louisville & Nashville Rwy. Co., W. M. Boykin, Asst. Supt. of Mobile-New Orleans Div., announced work started on improvements to cost \$10,000.

Miss., A. and M. College—Mobile & Ohio R. R. Co., B. A. Woods, Ch. Engr., Fullerton Bldg., St. Louis, Mo., erecting 1-story, frame, stucco and brick veneer, \$11,000 freight and passenger station; 21x80.6 ft., concrete floors and foundation, asphalt shingle roof; A. H. Patrick, Contr., Corinth; plans by C. A. Hayes, 1201 Fullerton Bldg., St. Louis.\*

Miss., Jackson—Illinois Central Railroad Co., F. L. Thompson, Vice-Pres., Chicago, Ill., reported, let contract to Virginia Bridge & Iron Co., Roanoke, Va., for 1500 tons of structural steel for passenger station.\*

### Schools

Ala., Birmingham—Board of Education let contract to Davis Co., Ensley (Br. of Birmingham), at \$61,900, for 2-story, 8-classroom, fire resistive, brick, steel, concrete and stone school building in Ensley; wood on concrete floors, roofing of composition on wood over fire resistive ceilings; major items to be purchased include classroom furniture; Birmingham Equipment Co., 605 N. 19th St., heating and plumbing; Walters Electric Co., electric work; B. B. Burnham, Age-Herald Bldg., Birmingham, and Wm. B. Ittner, Board of Education Bldg., St. Louis, Asso. Archts.\*

Ark., Siloam Springs—John E. Brown College has completed plans, soon start work on \$75,000, 2-story and basement, concrete, brick and wood, 222.6x183-ft. administration building; 16 classrooms, 2 laboratories, 4 offices and 58x74-ft. auditorium; pine floors, Spanish tile roof, concrete foundation; major items to be purchased include cement, brick, steel trusses, tile, lumber, sash and plaster; Jones Supply Co., probably do heating and plumbing; electric wiring by day labor; plans and construction by R. N. Allen, Supt. of Construction of John E. Brown College.\*

N. C., Raleigh—Building Committee of Board of Trustees of North Carolina State College of Agriculture & Engineering, R. N. Page, Chmn., Southern Pines, let contract to J. E. Beaman, State Theater Bldg., at \$126,900, for electrical engineering and physics building, and to Gallivan Building Co., Gallivan Bldg., Greenville, S. C., at \$50,500, for textile building addition; Wallin & Trull, 120 N. Davis St., heating plant in electrical engineering and physics building at \$6315, and plumbing at \$3875; Thompson Electrical Co., 132 Fayetteville St., wiring at \$5318; Gen. Contrs. on textile addition will install plumbing at \$1950; heating and

wiring not yet let; Poe Piping & Heating Co., 108 S. Main St., Greenville, S. C., sprinkler system for textile at \$4650; Moffatt Machinery Co., W. Third St., Charlotte, freight elevator at \$1357; electrical engineering will be 190x61 ft., 2 stories, with 80x60-ft. wing, fireproof with brick exterior and granite trim, furnish classrooms, laboratories and offices; Hobart Upjohn, Archt., Grand Central Terminal, New York; textile building extension to be 82x78 ft., 2 stories and basement, slow-burning mill-constructed brick; J. E. Sirrine & Co., Archts., Greenville, S. C.\*

N. C., Clinton—Sampson County Board of Education, John L. Hathcock, Supt., let contract to John W. Hudson, Tarboro, at about \$164,500 for erection of following schools: Piney Grove, 12 rooms; Dismal, 12 rooms; Herring School, 12 rooms; Halls School, 10 rooms; Shady Grove, 10 rooms; Plain View, 10 rooms; Taylor's Bridge, 7 rooms; Linthicum & Linthicum, Archts., 17 S. Willington St., Raleigh.\*

Tenn., Knoxville—Knox County Board of Education let contract to A. J. Stair, 627 S. Gay St., at \$13,590, for erecting 4-room auditorium schoolhouse on Washington Pike; brick and concrete, 1-story and basement, maple and concrete floors, concrete foundation, hollow and interior tile, steel sash; Barber & McMurray, Archts., Acuff Bldg.; contract for interior finishing of rooms at Rita School let to Cox & Hayes at \$850; Harbison-Burnett Plumbing Co., 215 N. Main St., has contract for installing heating system in Karns School at \$438.

Tenn., Knoxville—University of Tennessee, Thomas D. Martin, Sec. & Treas., let contract to A. H. Whisman, Walnut and Front Sts., at about \$186,000, for Laboratory Building for Department of Home Economics; 2 stories, attic and basement, cement tile roofing, concrete foundation, brick and tile walls, cast stone trim, Massillon floor joists, central unit 43x120 ft., west wing 45x74 ft., flooring of finish terrazzo, rubber stone tile, cement and wood on concrete slab; hollow tile, interior tile, ventilators, wire glass; McAuillie Plumbing & Heating Co., plumbing and heating; Warner Service Co., wiring; Otis Elevator Co., Atlanta, Ga., elevator; Miller, Fullenwider & Dowling, Archts., 646 N. Michigan Ave., Chicago, Ill.\*

Tenn., Memphis—University of Tennessee, Dr. H. A. Morgan, Pres. Knoxville, let contract to Blair Construction Co., Rand Bldg., at \$221,500, for erection of Anatomy Building; McCrory Electric Co., 63 S. Third St., electric wiring at \$8861; J. W. Hull Plumbing & Heating Co., 1329 Union St., heating, at \$19,934, and plumbing at \$24,586; Jones & Furbinger, Archts., 110 Porter Bldg.\*

Tex., Coleman—Board of Education let contract to Hood & Lemon, Brownwood, for \$125,000, 2-story and basement, brick, stone and concrete, fireproof high school building; W. G. Clarkson & Co., Archts., 606 First Natl. Bank Bldg., Fort Worth.\*

Tex., San Antonio—Bishop Arthur J. Drossearts, Chmn. of Building Comm., let contract to George Steubben, 519 Dawson St., at \$71,000 for construction of Immaculate Heart of Mary Junior school building, San Saba and San Luis Sts.; 3 stories, brick, stone, concrete, frame and hollow tile, stone trim, tar and gravel roof.

W. Va., Bluefield—J. F. Blunt, Bradmann Bldg., has sub-contracts for following work: All tile work in Beaver High School; all tile and slate work in Wade Junior High; all tile and rubber tile floors and marble work in Memorial School.

### Stores

Ark., Fort Smith—O'Neal & Drake, Contrs., remodeling Hench Building, Tenth St. and Garrison Ave.

Ark., Russellville—Joe Hamilton erecting 1-story, 36x100-ft. building, E. Madison St., leased to Smith & Tucker Candy Co.

Fla., Brooksville—W. W. Thompson erecting 2 store buildings, Howell Ave.; B. M. Horning, Contr.

Fla., Coral Gables—Laidlaw & Southworth, Contrs., erect \$100,000, 2-story building, Ponce de Leon Blvd. and Avenue Alcazar; Spanish design, 8 stores on ground floor, 10 offices above; Martin Hauri, Archt., 130 Avenue Obispo; Herbert Southworth supervising work.

Fla., Delray—Jones Furniture Co., Lake Worth, let contract for store building, Dixie Highway.

Miss., Jackson—Ridgway & McGehee, Inc., erecting \$10,000, 1-story, 80x75 ft., brick stores, W. Capitol St.; built-up asphalt roof, concrete floors, reinforced concrete founda-

tion, ventilators; C. H. Lindsley, Archt., Lamar Life Bldg., owners build. (See Machinery Wanted—Building Material; Vaults, etc.).

Fla., Jacksonville—W. T. Hadlow, Contr., Baldwin Bldg., has permit for 1-story, brick store building, Julia St.

Ky., Louisville—Central Furniture Co., rear of 224-6 W. Market St., erecting \$60,000, brick and concrete, 4-story addition; J. F. Russell, Brook and Bloom Sts., Contr.; W. C. Gibson & Co., 122 Bullitt St., heating; electric lighting by owners; Abell Elevator Co., 114 N. Eighth St., elevator.\*

La., New Orleans—Worth, Inc., Washington, D. C., let contract to Charles Wenar Co., Marine Bank Bldg., for extensive remodeling of first floor of building, 711 Canal St.; \$20,000, new front, plate glass windows, new floors, etc.

Mo., Clayton (Ind. Sta. St. Louis)—Harry H. Hawke and Norman B. Comfort, Inc., 30 S. Central Ave., broke ground for \$200,000, 3-story and basement, brick, frame and stucco building, Meramec Ave.; contain stores, offices and 18 efficiency apartments; Dan H. Mullen, Jr., Archts., St. Louis County Bank Bldg., St. Louis.

Mo., Maplewood (Br. of St. Louis)—A. B. Brown, 1509 Amelle Ave., alter 1-story brick building, 2665 Sutton Ave.; \$11,000; owner builds.

Mo., Maplewood (Br. of St. Louis)—J. W. Sprague Realty & Investment Co., 722 Chestnut St., erect \$30,000, 2-story, 37x105 ft. store and apartment building, 2500 Sutton Ave.; owner builds.

Mo., Springfield—H. B. McDaniel, 597 St. Louis St., let contract to S. E. Dobbs, 530 W. Lynn St., for remodeling building, W. McDaniel St.; \$10,000, 2 stories, brick and concrete, tar and gravel roof, wood and concrete floors, metal ceilings; McCarty Plumbing Co., 423 St. Louis St., plumbing; Ford Brass Co., 320 South St., electric work; Earl Hawkins & Co., Archts., McDaniel Bldg.\*

N. C., Greensboro—Morrison-Neese Furniture Co., 120 W. Market St., let contract to Angle & Blackford for 6-story and basement, 64x123-ft., brick and steel building, Greene St. and Stafford Court; cost \$250,000, including site; sprinkler system, offices on mezzanine floor; Otis Elevator Co., elevators; W. W. Dick Co., 246 Bellemeade St., heating; Harry Barton, Archt., Jefferson Bldg.\*

Okla., Holdenville—Alexander & Simpson, Contrs., erecting 40x100-ft. store building; J. B. Klein Iron & Foundry Co., Oklahoma City, structural steel and steel sash.

Okla., Oklahoma City—Phelps & Bright, 501 S. Robinson St., let contract to E. H. Bush for 70x50-ft., \$10,000, brick store and apartment house, 203 W. Chickasaw Ave.; J. B. Klein Iron & Foundry Co., 1006 W. Second St., structural steel.\*

S. C., Spartanburg—August W. Smith Co. let contract to Fiske Carter Construction Co., 115 N. Main St., for \$325,000 4-story department store building, E. Main St.; concrete frame, brick and limestone, concrete and linoleum floors, composition roof, concrete foundation, hollow and interior tile, metal doors, ventilators; L. W. Hickok, plumbing; W. G. Shivers Co., 115 S. Church St., heating; Lockwood, Greene & Co., Archts., 24 Federal St., Boston, Mass., and Spartanburg.\*

Tex., Dallas—F. B. Martin, 3232 McKinley Ave., excavating for \$40,000 2-story, brick and brick veneer, 95x80-ft. business and apartment building, 3301-7 McKinley Ave.; slate and built-up roof, reinforced concrete foundation, concrete, terrazzo and oak floors, metal ceilings, interior tile, steel; Dallas Plumbing Co., 2425 McKinney St., plumbing; W. G. Martin, Contr.; F. L. Young, Archt., 520 Praetorian Bldg.\*

### Theaters

Ky., Paducah—F. F. Manor, Engr. of Barton Organ Co., Oshkosh, Wis., arranging preliminary plans for placing of two \$15,000 organs in Orpheum and Arcade Theaters.

Tex., Port Arthur—Jefferson Amusement Co., care Joseph C. Clemmons, Liberty Theater Bldg., Beaumont, let contract to McDaniel & Hartford, 2255 Franklin St., Beaumont, for remodeling theater building; \$50,000; Emile Well, Archt., Whitney Annex, New Orleans, La.\*

### Warehouses

La., Morgan City—E. L. Beckhan, Shreveport, has contract for construction of four 40x100-ft. units of reinforced concrete warehouse, at \$63,841.

In writing to parties mentioned in this department it will be of advantage to all concerned if the Manufacturers Record is mentioned.



Okl., Blackwell—Zook Wholesale Grocery Co. started work on \$10,000 1½-story, brick addition to building, 122 N. Fulton St.

Tenn., Knoxville—Oakwood Manufacturing Co., Harvey and Morella Ave., let contract to J. M. Dunn & Son, Broadway and Depot, for \$30,000 warehouse.

Tex., Abilene—Reporter Publishing Co., Inc., let contract to R. C. Lewis at about \$25,000 for 2-story and basement, 50x120-ft., fireproof, brick and reinforced concrete

warehouse; Mosher Steel & Mch. Co., 900 S. Austin St., Dallas, structural steel; Truscon Steel Co., 115 Field St., Dallas, reinforced steel; Otis Elevator Co., 1820 Young St., Dallas, elevators; Wm. Nichols and George F. Campbell, Archts., 29-30 Radford Bldg.

Tex., Alice—Mitchell Brothers, P. O. Box 165, has contract for \$15,000 80x100 ft., reinforced concrete and tile, 1-story store and theater building; composition roof; Alice Lumber Co., furnish materials.

Tex., Houston—Continental Wirebound Box Co., S. F. Talbert, Pres., 2324 Maury St., let contract to Henry H. Yates, 1213 Wrightwood St., for \$15,000, 105x120-ft. warehouse; frame truss roof, iron walls, pine floors, reinforced concrete foundation, tar and gravel roof; Peden Iron & Steel Co., 700 N. San Jacinto St., steel; R. B. Everett, 3118 Harrisburg Blvd., sash; L. Selme, sheet metal; Lone Star Roofing Co., Pine and Baker Sts., roof; Robert J. Cummins, Archt. & Struct. Engr., 727 Bankers Mortgage Bldg.\*

## MACHINERY, PROPOSALS AND SUPPLIES WANTED

**Asbestos.**—L. O. Bilt, Inc., Daytona Beach, Fla.—Wants prices on asbestos to use with concrete in manufacture of floor tile.

**Baking Oven.**—Guyan Machine Shops, Logan, W. Va.—Wants baking oven about 48 in. high, 60 in. deep and 84 in. long, for baking armatures at temperature of about 200 degrees F., with natural gas fuel.

**Beltting.**—Washington Steel Products Co., 305 Smith Bldg., 815 Fifteenth St., Washington, D. C.—Wants 6-in. heavy leather belt.

**Boat Hull.**—U. S. Engineer Office, Vicksburg, Miss.—Receives bids Jan. 2 to furnish and deliver one steel maneuver boat hull.

**Boiler (Steam).**—Tomlin-Harris Machine Co., Cordele, Ga.—Wants prices on small steam boiler for pressing club.

**Boiler.**—Washington Steel Products Co., 305 Smith Bldg., 815 Fifteenth St. N. W., Washington, D. C.—Wants good second-hand boiler, complete with fronts and all equipment; also good heavy smokestack and spark-arrester boiler, 100 or 150 h. p., good condition; pass insurance inspection of 125 lbs.; state age; Virginia delivery.

**Bread Baking Equipment.**—Missouri-Illinois Stores Co., 826 Clark Ave., St. Louis, Mo.—Wants bread-making equipment.

**Brick Cutter.**—Star Brick & Tile Co., 610 Quincy St., San Antonio, Tex.—Wants Freese No. C-20 or No. 30 model side cut brick cutter, in good condition, second-hand.

**Bridge.**—Bartlesville, Okla. See Construction News—Bridges, Culverts, Viaducts.

**Bridge.**—Bradenton, Fla. See Construction News—Bridges, Culverts, Viaducts.

**Bridge.**—State of Missouri will build 52 bridges. See Construction News—Roads, Streets, Paving.

**Bridge.**—State Highway Dept., Austin, Tex., will build 3 bridges. See Construction News—Roads, Streets, Paving.

**Bridge.**—Washington, D. C. See Construction News—Bridges, Culverts, Viaducts.

**Bridge, etc.**—Dadeville, Ala., will build 4 bridges and fills. See Construction News—Bridges, Culverts, Viaducts.

**Bridge.**—Richmond, Tex. See Construction News—Bridges, Culverts, Viaducts.

**Bridge.**—State of Tennessee will build 2 bridges. See Construction News—Bridges, Culverts, Viaducts.

**Bridge.**—Sanford, Fla. See Construction News—Bridges, Culverts, Viaducts.

**Building Materials.**—Tampa Arctic Ice Co., Inc., R. A. Buford, Jr., Pres., Bruen & Webb Bldg., Tampa, Fla.—Wants prices on concrete blocks, tile, metal sash, etc.

**Building Material.**—Ridgway & McGehee, Inc., Jackson, Miss.—Wants data and prices on shale face brick, hollow tile and interior tile for store building.

**Building Material.**—S. S. Strong, Laverne, Okla.—Wants composition stone trim, metal lumber framing, vault doors, iron work and stairways, skylights, fire lines, fire doors and exterior wall, brick and tile, for 3-story, 57x12-ft. courthouse, Boise City.

**Building Material.**—Tudor & Roland, 306 Commercial Bank Bldg., Alexandria, La.—Wants prices by middle of Dec. on limestone, terra cotta, millwork for jail, Crowley, La.

**Building Plans.**—J. W. Lester, Bristol, Tenn.—Wants catalogs on all types of bungalows.

**Candy Making Machinery.**—John R. Billings, 1522 E. Jefferson Ave., Detroit, Mich.—Wants equipment to make candy kisses.

**Carpets.**—See Furniture and Rugs.

**Cars.**—Washington Steel Products Co., 305 Smith Bldg., 815 Fifteenth St. N. W., Washington, D. C.—Wants two 36-in. gauge light hand cars for saw-mill work.

**Clocks.**—A. H. Hodgskin (Mfrs. Agent), Box 539, Reidsville, N. C.—Wants prices on about 1000 clocks, especially constructed, run about 8 hrs., revolve at rate of from four to six revolutions per min., set in framework of about 8 in. diam.

**Coal Mining Machinery and Supplies.**—Boone County Mining Co., Columbia, Mo.—Wants prices on coal mining machinery and supplies.

**Coffee Roasting Equipment.**—Missouri-Illinois Stores Co., 826 Clark Ave., St. Louis, Mo.—Wants coffee-roasting equipment.

**Concrete Block.**—See Building Materials.

**Concrete Block Machine.**—K. O. Bilt, Inc., Daytona Beach, Fla.—Wants latest improved automatic concrete block machine.

**Conveyors.**—Sandhill Sand Co. (Talbird Siding), Star, N. C.—Receives bids about Jan. 1 for 2 belt conveyors with gasoline engine.

**Conveyors.**—Tampa Arctic Ice Co., Inc., R. A. Buford, Jr., Pres., Bruen & Webb Bldg., Tampa, Fla.—Wants prices on conveyors.

**Cranes (Motor).**—Tampa Arctic Ice Co., Inc., R. A. Buford, Jr., Pres., Bruen & Webb Bldg., Tampa, Fla.—Wants prices on 3 motor cranes.

**Crucible.**—Ward Chemical Co., Atco Bldg., Tulsa, Okla.—Wants prices on 250-gal. crucible.

**Dining Room Equipment.**—Harold E. George, 330 Municipal Courts Bldg., St. Louis, Mo.—Wants information on dining-room equipment.

**Distilling (Water) Apparatus.**—John P. Mansur, 726 Kinyon St., St. Petersburg, Fla.—Wants data on apparatus to distill water for domestic use; also other equipment pertaining to same; correspond with manufacturers.

**Drainage.**—Comms. of Lafourche-Terrebonne Drainage Dist., Thibodaux, La.—Receives bids Jan. 6 for complete gravity drainage system, approximately 1,000,000 cu. yds. excavation; plans with M. J. Polmer, Sec., Schriever, La.

**Dredging, etc.**—Comms. of Matagorda County Conservation & Reclamation Dist. No. 1, John T. Bond, Sec., Bay City, Tex.—Receives bids Dec. 19 for dredging, clearing and grubbing, install drainage structures, build bridges, etc., in district; E. N. Gustafson, Engr., Bay City; H. Black, Dist. Engr., Markham, Tex.

**Dredging, etc.**—U. S. Engineer Office, Room 710 Army Bldg., 39 Whitehall St., New York.—Receives bids Dec. 19 to dredge and repair jetty at Browns Creek, N. Y.

**Dredging, etc.**—U. S. Engineer Office, Room 710 Army Bldg., 39 Whitehall St., New York.—Receives bids Dec. 19 to dredge and repair jetties at Browns Creek, N. Y.

**Electric Motors.**—See Water Works.

**Electric Oven, etc.**—U. S. Veterans' Bureau, Supply Division, Washington, D. C.—Receives bids Dec. 10 for electric oven and doughnut stove for U. S. V. H., Tupper Lake, N. Y.

**Electric Ranges.**—U. S. Veterans' Bureau, Supply Division, Washington, D. C.—Receives bids Dec. 5 for 8 electric ranges.

**Electric Wiring.**—Tudor & Roland, 306 Commercial Bank Bldg., Alexandria, La.—Wants prices by middle of Dec. on electric wiring for jail, Crowley, La.

**Electric Wiring.**—Blaine H. Vlier, 200 Pineapple Ave., Sarasota, Fla.—Wants bids on underground wiring system for 80-acre subdivision.

**Elevated Tank and Tower.**—See Water Works and Sewers.

**Engines.**—See Water Works.

**Engine.**—See Water Works.

**Engine.**—Davis Equipment Co., 8 W. 40th St., New York.—Wants before Jan. 1, 100 h. p. Diesel or semi-Diesel engine; state full particulars, etc.

**Fire Doors.**—See Building Material.

**Fire Hose.**—U. S. Veterans' Bureau, Supply Division, Washington, D. C.—Receives bids Dec. 11 for 1000 ft. of 2½-in. fire hose.

**Flooring.**—Guyan Machine Shop, Logan, W. Va.—Wants 2000 sq. ft. flooring about 2 in. thick.

**Flooring (Tile Mastie, etc.).**—Harold E.

George, 330 Municipal Courts Bldg., St. Louis, Mo.—Wants information on flooring material, such as tile, mastic, etc., for locker and refectory building.

**Furnace (Hot Air).**—Guyan Machine Shops, Logan, W. Va.—Wants hot-air furnace for 2-story, 40x100-ft. building with soft coal; prefer pipeless type.

**Furnishings (Church).**—First Baptist Church, R. J. Lewis, Chmn., Central Bldg. Comm., Asheville, N. C.—Wants prices on church furnishings.

**Furniture and Rugs.**—University Lodge No. 649, A. F. and A. M., University City, Mo. (Sta. St. Louis).—Wants prices on furniture for lodgeroom and lounge, also carpets.

**Garage Supplies and Equipment.**—Weaver Motor Co., Asheville, N. C.—Prices on garage supplies and equipment.

**Generator.**—W. C. Meadows, Pores Knob, N. C.—Wants data and prices on generator or dynamo, built on vertical shaft to be attached to top end of water wheel shaft, from ½ kw. up, any size or wound; correspond with manufacturers.

**Generator Set.**—J. F. Foster, 294 Washington St., Boston, Mass.—Wants 600 to 800 h. p. crude oil engine and generator, 3 phase, 60 cycle, 550 or 2300 volts; first-class unit with revolving fields.

**Glass Bottles.**—John P. Mansur, 726 Kinyon St., St. Petersburg, Fla.—Wants prices on 1-gal. and 5-gal. glass bottles.

**Gravel.**—Louisiana Highway Comn., Baton Rouge, La.—Receives bids Dec. 15 to furnish gravel for surfacing 2.58 ml. road, Calcasieu Parish; plans on file; W. B. Robert, State Highway Engr.

**Gravel.**—Louisiana Highway Comn., Baton Rouge, La.—Receives bids Dec. 22 to furnish gravel for surfacing 14.30 ml. road, Evangeline and Jefferson Davis Parishes; plans on file; W. B. Robert, State Highway Engr.

**Gravel.**—Louisiana Highway Comn., Baton Rouge, La.—Receives bids Dec. 22 to furnish gravel for surfacing 9.88 ml. Tangiahua Parish; plans on file; W. B. Robert, State Highway Engr.

**Gravel.**—State Highway Comn., Frank V. Jarhan, Chmn., Austin, Tex.—Receives bids Dec. 11 to furnish approximately 5000 cu. yds. standard road gravel at Elgin, Tex.

**Heating Plant.**—J. W. Lester, Bristol, Tenn.—Wants sub-bids on steam heating system for residence.

**Household Furnishings.**—See School Equipment.

**Hydraulic Press.**—The Eastern Machinery Co., 408 E. Pearl St., Cincinnati, Ohio.—Wants 100-ton Capital hydraulic press and press similar to Bliss No. 210.

**Ice Plant.**—Blaine H. Vlier, 200 Pineapple Ave., Sarasota, Fla.—Wants bids on ice plant.

**Ice Plant Equipment.**—Tampa Arctic Ice Co., Inc., R. A. Buford, Jr., Pres., Bruen & Webb Bldg., Tampa, Fla.—Wants prices on ice-plant equipment.

**Iron and Steel Gears, etc.**—C. Walker Hodges, Morehead City, N. C.—Wants worm gears and iron and steel gearing with cut and cast teeth; correspond with manufacturers.

**Iron Work and Stairways.**—See Building Material.

**Kitchen and Refectory Equipment.**—Harold E. George, 330 Municipal Courts Bldg., St. Louis, Mo.—Wants information on kitchen and refectory equipment.

**Laboratory Still.**—U. S. Veterans' Bureau, Supply Division, Washington, D. C.—Receives bids Dec. 4 for laboratory still; delivery Algiers, La.

**Lamp Posts, etc.**—Board of Awards, F. A. Dolfeld, Register, City Hall, Baltimore, Md.—Receives bids Dec. 16 to furnish and deliver cast iron lamp posts and sub-bases to Division of Lighting; B. H. Crozier, City Engr.

**Lathe.**—The Eastern Machinery Co., 408

In writing to parties mentioned in this department it will be of advantage to all concerned if the Manufacturers Record is mentioned.

E. Pearl St., Cincinnati, Ohio.—Wants gap lathe, swing 36 in. and when bed is pulled out 72 to 84 in., bed any size from 12 to 20 ft.

**Lime.**—South Baldwin Brick Co., Box 222, Foley, Ala.—Wants high-grade calcium lime for manufacture of sand lime bricks; correspond with manufacturers located near Mobile for shipping convenience.

**Limestone.**—See Building Material.

**Locomotives.**—Norfolk Southern Railroad Co., L. M. Jones, Purchasing Agent, Room 200, Terminal Bldg., Norfolk, Va.—Wants 5 consolidation type freight locomotives, weighing approximately 191,400 lbs., develop tractive power of approximately 40,400 lb.; delivery f. o. b. Norfolk Southern rails, Norfolk, Va.; bids desired for delivery Feb. 15.

**Lubricators.**—U. S. Veterans' Bureau, Supply Division, Washington, D. C.—Receives bids Dec. 9 for 6½ sets lubricators for elevator rails.

**Machine Tools.**—The Eastern Machinery Co., 408 E. Pearl St., Cincinnati, Ohio.—Wants No. 4 Cincinnati vertical milling machine; 36-in. Gould & Everhart gear hobber or similar machine; 24-in. Morton draw-cut shaper.

**Metal Lumber.**—See Building Material.

**Metal Sash.**—See Building Materials.

**Millwork.**—See Building Material.

**Miscellaneous Supplies.**—Panama Canal, A. L. Flint, General Purchasing Officer, Washington, D. C.—Receives bids Dec. 12 to furnish wire rope, cable, wire, bushings, terminals, iron, steel, brass and copper tubing, pipe fittings, ball joints, valves, clocks, water closets, shower heads, syphons, lead bends, snatch blocks, etc. Blank forms and information (Circular 1711) on application to offices of Panama Canal; Asst. Purchasing Agents at New York, New Orleans, Fort Mason, San Francisco, Cal.; also U. S. Engineer Offices throughout country.

**Motor.**—Ward Chemical Co., Atko Bldg., Tulsa, Okla.—Wants prices on 20 h. p. motor.

**Motor or Generator.**—W. M. Smith & Co. (Mch. Dealer), First Ave., Birmingham, Ala.—Wants one 15 h. p., D. C., 220 volt motor or generator.

**Oil Engines.**—See Water Works and Sewers.

**Office Equipment.**—See School Equipment.

**Paint and Volatile Mineral Spirits.**—Marine Corps, Quartermaster's Dept., Washington, D. C.—Receives bids Dec. 11 to furnish paint and volatile mineral spirits; delivery Quantico, Va. Sch. 295.

**Painting.**—Board of Awards, F. A. Dolfield, Register, Baltimore, Md.—Receives bids Dec. 9 for interior painting at Canton Market, O'Donnell St., from Potomac St. to Linwood St.; also painting Northeast Market, Chester St.; C. H. Osborne, Chief Bureau of Bldgs.

**Paving.**—Murphy, Taylor & Ellis, 470 Cherry St., Macon, Ga.—Wants bids on paving for subdivision.

**Paving.**—Miami, Fla. See Construction News—Roads, Streets, Paving.

**Paving.**—Tampa, Fla. See Construction News—Roads, Streets, Paving.

**Paving.**—Richmond, Tex. See Construction News—Roads, Streets, Paving.

**Paving.**—Eustis, Fla. See Construction News—Roads, Streets, Paving.

**Paving.**—Crystal River Fla. See Construction News—Roads, Streets, Paving.

**Peanut Blancher.**—Barrett Potato Chip Co., 441 Marietta St., Atlanta, Ga.—Wants prices on peanut blancher.

**Pebble Mill.**—Ward Chemical Co., Atko Bldg., Tulsa, Okla.—Wants prices on small pebble mill.

**Photographic Supplies.**—Marine Corps, Quartermaster's Dept., Washington, D. C.—Receives bids Dec. 4 to furnish photographic supplies; delivery Quantico, Va. Sch. 292.

**Piers and Abutments.**—Arlington Memorial Bridge Comsn., Office of Executive Officer, Washington, D. C.—Receives bids Jan. 7 to construct piers and abutments of Arlington Memorial Bridge across Potomac River at Washington; bids opened at Room 1613 Navy Bldg.

**Pipe (Concrete and Vitrified Clay).**—J. W. North, Mayor, Laurinburg, N. C.—Receives bids Dec. 15 to furnish 2540 ft. of 36-in. and 1125-ft. of 30-in. reinforced concrete pipe; 350 ft. of 24-in., 824 ft. of 21-in., 320 ft. of 18-in. and 530 ft. of 15-in. plain concrete or vitrified clay pipe; C. M. Fetter, City Clerk; W. E. Matthews, City Engr.

**Pipe.**—See Water Works.

**Pipe Organ.**—First Baptist Church, R. J.

Lewis, Chrmn. Central Bldg Comm., Asheville, N. C.—Wants prices on pipe organ.

**Plumbing.**—Tudor & Roland, 306 Commercial Bank Bldg., Alexandria, La.—Wants prices by middle of Dec. on plumbing for jail, Crowley, La.

**Potato Chip Slicer.**—Barrett Potato Chip Co., 441 Marietta St., Atlanta, Ga.—Wants prices on potato chip slicer.

**Preserving Equipment.**—Missouri-Illinois Stores Co., 826 Clark Ave., St. Louis, Mo.—Wants preserving equipment.

**Pump.**—Hackley Morrison Co., 1708 Lewis St., Richmond, Va.—Wants one centrifugal pump with 3 phase, 60 cycle, 220 volt motor, capacity 400 to 500 g. p. m. against 100-ft. head.

**Pumps.**—See Water Works.

**Pumping Outfit.**—Moore Lumber Co., Jno. O. Moore, Culverton, Ga.—Wants steam or air pumping outfit for planing mill, to be operated at boiler room to put water into tank, boiler being about 200 yds. from pond and about 10 yds. from tank; in winter have trouble with freezing.

**Rat Trap.**—Wallis Stacy, Stacy, Va.—Wants to contract for manufacture of patent rat and mouse trap.

**Saw.**—Washington Steel Products Co., 305 Smith Bldg., 815 Fifteenth St. N. W., Washington, D. C.—Wants one vertical resaw or saw mill 6 or 7 ft., standard make; state price and condition.

**Refrigerating Equipment.**—Missouri-Illinois Stores Co., 826 Clark Ave., St. Louis, Mo.—Wants refrigerating equipment.

**Road.**—State of Missouri will build 41 roads. See Construction News—Roads, Streets, Paving.

**Road.**—Lafayette, La. See Construction News—Roads, Streets, Paving.

**Road.**—Seymour, Tex. See Construction News—Roads, Streets, Paving.

**Road.**—Bastrop, Tex. See Construction News—Roads, Streets, Paving.

**Road.**—Ville Platte, La. See Construction News—Roads, Streets, Paving.

**Road.**—Amite, La. See Construction News—Roads, Streets, Paving.

**Road.**—Albany, Tex., will build 3 roads. See Construction News—Roads, Streets, Paving.

**Road.**—Lake Charles, La. See Construction News—Roads, Streets, Paving.

**Road.**—Barboursville, Ky. See Construction News—Roads, Streets, Paving.

**Road.**—Pensacola, Fla. See Construction News—Roads, Streets, Paving.

**Road.**—Brenham, Tex. See Construction News—Roads, Streets, Paving.

**Road.**—Gretna, La., will improve 2 roads. See Construction News—Roads, Streets, Paving.

**Road.**—State of Kentucky will build 3 roads. See Construction News—Roads, Streets, Paving.

**Road Building Machinery.**—Carlos D. Speck, Taylor County Judge, Abilene, Tex.—Receives bids Dec. 14 for one or more 10-ton crawler type road tractors, one or more 12-ft. road graders, one or more motor-driven one-man maintainers; state types and prices.

**School Equipment.**—E. Y. Mullins, Norton Hall, Pres. of Southern Baptist Seminary, Louisville, Ky.—Wants bids until about Jan. for 160 bedroom outfits, 15 office equipments, kitchen and dining room equipment for \$1,600,000 school plant.

**Seating (Church).**—First Baptist Church, R. J. Lewis, Chrmn. Central Bldg. Comm., Asheville, N. C.—Wants prices on church pews.

**Sewers.**—See Water Works and Sewers.

**Sewers.**—Murphy, Taylor & Ellis, 470 Cherry St., Macon, Ga.—Wants bids on sewers for subdivision.

**Sewer Construction.**—Board of Awards, Baltimore, Md.—Receives bids Dec. 9 for sanitary sewers in Dist. G-13, Sanitary Contract No. 229; work includes 1500 ft. 15-in., 750 ft. 12-in., 2950 ft. of 10-in., 13,700 ft. of 8-in. vitrified sewer pipe; 6200 ft. of 5 and 6 in. vitrified house connections, 7000 ft. of underdrains 825 vertical ft. of standard manholes; Milton J. Ruark, Sewerage Engr.

**Sewer Construction.**—City of West Palm Beach Fla., C. A. Bingham, Mgr.—Receives bids Dec. 8 for sanitary and storm water sewers, including vitrified pipe sewer, sanitary sewer with plastic joints; storm water sewers with cement joints; storm water sewers, of segmental tile block or reinforced concrete; T. B. Henry, City Engr.

**Shrubbery.**—Murphy, Taylor & Ellis, 470 Cherry St., Macon, Ga.—Wants bids on shrubbery for subdivision.

**Sidewalks.**—Murphy, Taylor & Ellis, 470 Cherry St., Macon, Ga.—Wants bids on sidewalks for subdivision.

**Skylights.**—See Building Material.

**Steel Barges.**—Inland Waterways Corp., 1016 Munitions Bldg., Washington, D. C.—Receives bids Dec. 21 for 10 steel barges, approximately 2000 tons capacity, Mississippi River service.

**Snow Plow.**—M. K. Frank, Park Row Bldg., New York.—Wants second-hand snow plow, standard gauge.

**Steam Shovel.**—W. M. Smith & Co. (Mch. Dealer), First Ave., Birmingham, Ala.—Wants one S. H., ¾ or 1 yd. crawler type tread steam shovel.

**Street.**—Bradenton, Fla. See Construction News—Roads, Streets, Paving.

**Structural Steel, etc.**—Long's Garage, Big Stone Gap, Va.—Wants prices on structural steel and trusses for garage building.

**Tank and Tower.**—See Water Works.

**Terra Cotta.**—See Building Material.

**Tile.**—See Building Materials.

**Tile Floor.**—U. S. Engineer Office, Florence, Ala.—Receives bids Dec. 16 to furnish materials and lay tile floor and wainscot in power house of Wilson Dam, Tennessee River.

**Tractor.**—Amos Lee, Matagorda County Auditor, Bay City, Tex.—Receives bids Dec. 15 for one 50-ton light-weight tractor, crawler type, for road Dist. No. 1.

**Vault Doors.**—See Building Material.

**Vaults, etc.**—Ridgway & McGehee, Inc., Jackson, Miss.—Wants data and prices on vaults and vault lights for store building.

**Vault Doors.**—Hugger Bros. Construction Co., Shepherd Bldg., Montgomery, Ala.—Wants sub-bids on vault doors for bank at Greenville.

**Vault Lights.**—See Vaults, etc.

**Vitrolite Glass (Black and White).**—H. M. Wade Manufacturing Co., Charlotte, N. C.—Wants white and black vitrolite glass in quantities; correspond with manufacturers.

**Warehouse Truck Equipment.**—Missouri-Illinois Co., 826 Clark Ave., St. Louis, Mo.—Wants warehouse truck equipment.

**Water System.**—Blaine H. Vlier, 200 Pineapple Ave., Sarasota, Fla.—Wants bids on water system for 80-acre subdivision.

**Water Works.**—City of Staunton, Va., W. F. Day, Mgr.—Receives bids Dec. 15 for construction of Contract No. 5, water works; 850 cu. yds. unclassified excavation; 1700 ft. of 20-in. cast iron pipe in trench; 5700 ft. of 20-in. cast iron pipe in tunnel; alternate bids on 20-in. lockjoint concrete pipe; Fuller & McClintock, 170 Broadway, New York, and Lee H. Williamson, National Bank Bldg., Charlottesville, Va., Engrs.

**Water Works.**—City Commrs., Grand prairie, Tex.—Receives bids Dec. 5 to furnish and install additional equipment, including air compressor, air lift pump, water pumps, engines or electric motors, etc., to pumping plant; also for furnishing and installing all piping, valves, fittings, etc., for extension to water works system; Koch & Fowler, Conslt. Engrs., 606 Central Bank Bldg., Dallas.

**Water Works.**—Texas National Guard, care Lieut. Col. Claude A. Adams, Camp Mabry, Austin, Tex.—Receives bids Dec. 10 for following improvements: Laying and furnishing 12,000 ft. of 4-in. cast iron and 21,000 ft. of 2-in. galvanized iron pipe; 600 ft. deep well, air pump and piping to deliver 200 g. p. m.; frame pumphouse 20x20 ft., 50 h. p. gasoline engine, centrifugal pump, air compressor and necessary piping, 50,000-gal. wooden tank with alternator on dismantling and re-erecting tank from Ellington Field; 50,000-gal. steel tank on 125-ft. tower.

**Water Works and Sewers.**—City of Kemp, Tex., J. C. Allen, Mayor.—Receives bids Dec. 10 for water works and sanitary sewers, including 6 and 8 in. cast iron water pipe, about 5 miles 8 to 15 in. vitrified tile sewer pipe, Imhoff-type disposal plant, dam, elevated tank and tower, oil engines and pumps; Koch & Fowler, Conslt. Engrs., Central Bank Bldg., Dallas.

**Water Works Machinery.**—Board of Awards, Baltimore, Md., receives bids Dec. 9 for furnishing, erecting, elevating and conveying machinery for additions to Montebello Filters; V. Bernard Siems, Water Engr., 295 City Hall.

**Woodworking Machinery.**—E. L. Hedrick, Asheboro, N. C.—Wants second-hand machinery for making old hickory furniture.

**Wreck Removal.**—U. S. Engineer office, Wilmington, Del.—Receives bids Dec. 10 for removing sunken schooner "Alberta" from Assateague Anchorage, coast of Virginia.

In writing to parties mentioned in this department it will be of advantage to all concerned if the Manufacturers Record is mentioned.



## Trade Literature

**Lockwood's Paper Trade Directory.**

Lockwood's Directory of the Paper and Allied Trades for 1926 has been issued, this being the fifty-first annual edition of this standard and reliable publication. It is published every September and is thoroughly revised and brought up to date every year. It is issued in two forms—one a good-sized volume for office use and substantially bound in cloth, and the other for travelers' use, this latter being of pocket size and also substantially bound in a soft, flexible cover. It is a complete directory in its line, giving full particulars as to locations and addresses of manufacturers and dealers in all branches of the paper trade throughout the United States, besides a great deal of related information as to the trades in Canada, Cuba, Mexico and South America appropriately arranged for ready reference. A feature of the book is a separate list of mill officials, including superintendents and their connections. Another feature is listing wholesale dealers in rags and paper stock who sell to the mills, besides converters of paper, wholesale and retail stationers, information as to watermarks and brands, names of trade associations, statistical information, etc. The book is issued by the Lockwood Trade Journal Co., Inc., 10 East Thirty-ninth street, New York, N. Y. The price is \$7.50.

**Roebling's Fine Book About Suspension Bridges.**

A beautifully made book containing an abundance of interesting, instructive and attractive illustrations taken during the erection of the Bear Mountain Bridge over the Hudson River has been published by the John A. Roebling's Sons Co. of Trenton, N. J. Its title is "The Construction of Parallel Wire Cables for Suspension Bridges," but it is an unusual production in that it is both a scientific and photographic study of the construction of a modern suspension bridge. The pictures, reproduced from actual photographs, are in continuity from the actual beginning of construction of the Bear Mountain Bridge to its completion. This remarkable structure, opened during the past year to highway traffic, spans the river about 42 miles north of New York city, one end being at Anthony's Nose on the eastern bank, the other being at the site of old Fort Clinton at Bear Mountain on the western bank. At the center it is 155 feet above the water at high tide, and the main span is 1632 feet long between the towers. The floor is a reinforced concrete highway 38 feet wide, with a sidewalk five feet wide on each side. All of the cable wire used in fabricating the two main cables, and the steel-wire ropes used for foot bridges and suspenders, were furnished by the John A. Roebling's Sons Co.

**Manitowoc Equipment Bulletin.**

"If you will check over the various illustrations in this booklet, you will readily appreciate the extensive service Manitowoc Equipment is prepared to render," says the Manitowoc Shipbuilding Corporation, Manitowoc, Wis., in its general equipment bulletin, which is a booklet of large pages full of pictures, a few of which display the works of the organization, but a profusion of others show various of its products and how they are used. The company makes boilers, rebuilds locomotives and cars, renders general engineering service, builds kilns, coolers, tanks, galvanizing kettles, leaching cells, vulcanizers, dryers, digesters, inclinerators, re-torts, barking drums, etc., besides doing ship-building work.

**Osgood Heavy Duty Gas Shovel.**

The Osgood Company, Marion, Ohio, has issued Bulletin 2514, giving full particulars about the Osgood Heavy Duty Gas Shovel which was introduced at the Road Show in Chicago last year and which has been very successful, meeting with even more favor in the field than was anticipated. The machine is built almost entirely of open-hearth and alloy steels and only four friction clutches are employed in its usual operations, these being of the outside band type, powerful and reliable. Strength and efficiency are outstanding characteristics of the machine, which, though built to stand up under heavy service as a shovel, is equally efficient as a crane or as a clamshell or a dragline excavator; it is only necessary to change booms and fit the proper bucket. Copies of the bulletin will be sent by the company on request.

**Allis-Chalmers Issues Two New Bulletins.**

The Allis-Chalmers Manufacturing Company, Milwaukee, Wis., has issued two new bulletins, one about the Allis Texrope Drive for machinery and the other about the company's Crushing Rolls, Garfield Type. Both bulletins are illustrated, the pictures being accompanied by full particulars in both descriptive matter and tabular data. The Texrope Drive is described as a flexible and positive belt drive for close centers. Of the Crushing Rolls it is stated that the use of the fly-wheel type of pulleys has proven that they are a great aid in preventing the choking of the rolls from sudden rushes of feed and they also prevent vibration of the frame when making large reductions.

**Ideal Self-Starting Induction Motor.**

A full description of the Type AA Double Squirrel Cage Automatic Self-Starting Induction Motor is given in Bulletin No. 110 of the Ideal Electric & Manufacturing Co., of Mansfield, Ohio. This is a general purpose motor and the company reports that it is meeting with unusual favor in the trade. The bulletin says that the motor accomplishes in a magnetic manner what heretofore has been done mechanically, but it has all of the rugged simplicity and reliability of the standard motor. Features are outlined thus: Low inrush, high starting torque, low first cost, remote control, high efficiency and freedom from expensive control apparatus.

**New International Cement Plant at Norfolk.**

Bulletin No. 5 of the International Cement Corporation contains a special illustrated article about the new Virginia plant of that organization—the Virginia Portland Cement Corporation plant at Norfolk. This is a big cement factory, and the lime content of Lone Star Cement produced there is obtained from marl deposits at Chuckatuck, on the Elizabeth River, 25 miles distant. A very high-grade clay, especially suited for cement manufacture, is obtained from Waverly, Va., 60 miles away. The Norfolk establishment is one of the outstanding cement plants in this country, and a panoramic view of it extends across two pages of the bulletin, showing the reader at a glance its magnitude and its immediate proximity to rail and water transportation.

**National Packaging Machinery Described.**

The National Packaging Machinery Co., whose address is Boston 30, Mass., has published a finely illustrated bulletin concerning the "National" packaging machinery, which, it is stated, feeds, forms, dates, lines, weighs, fills, seals, wraps and hermetically seals cartons, fills bags, packs cans, cartons, bottles,

forms paper boxes, tapered pails, display containers, etc. Full particulars are given about the operation of the machinery and the work which it does.

## Book Reviews

**How Advertisements Are Built.** By Gilbert P. Farrar. New York and London. D. Appleton & Co. 1925. Pp. 296. Cloth. \$3.50.

This book deals with the creation and production of magazine and newspaper advertisements. It is intended for the use of two classes of readers; viz., business men and students of advertising. The business man needs a yardstick for measuring the perfection of his own advertisement and the student desires to know how modern advertisements are built. Written by an expert, the volume shows exactly how advertisements are conceived, visualized and then put into type, pictures, etc. Mr. Farrar has produced a handbook which fits into the business world. He is regarded as one of the foremost typographical experts and, in addition to his work in relation to the layout of advertisements for great publicity campaigns, he is a special lecturer on the subject at New York University. In the introduction he says that he has been anxious to show definite principles and a few of the many methods under each of the principles. Also that he has tried to keep on safe ground, even at the risk of seeming trite in some places. Nevertheless, his caution in this respect will be appreciated by the thoughtful reader, who will realize the soundness of this position.

**Rats and How to Destroy Them.** By Mark Hovell, F. R. C. S. New York: William Wood & Co. Pp. 465. Cloth. \$5.

This volume treats of the problem of ridding various premises of rats, telling how to drive them out from houses, shops, warehouses, outbuildings, yards, stables, cow houses, chicken houses, pigsties, gardens, green-houses, vineyards, etc. In fact, the author, who is an Englishman and has dedicated his work to two men of his country who he says "have done most in the past few years to direct public attention to the real significance of the rat menace," also points out how rats may be abolished anywhere—for instance, on farms, shooting estates, sewers, ships, along streams or other waters, etc. Indeed, he seems to exhaust comprehensive consideration of the rat nuisance, leaving nothing to be desired in the way of information concerning how to dispose of the pests. While he wrote the volume as a result of requests made by friends, a further inducement was the knowledge of the enormous loss which rats inflict, and he says it would not be surprising if the damage they do was found to be 1,000,000 pounds sterling per week to Great Britain, considering rural as well as urban districts, and also docks and warehouses in which food is stored in bulk. Besides, he instances the proof that rats are disease carriers, notably, as almost everyone knows, of the terrible bubonic plague, this disease conveyance being by means of the fleas that infest the rodents. Mr. Hovell says that the mongoose is one of the best of enemies of rats to use to drive them away, but it has to be employed with caution, for the mongoose will kill poultry and small animals and is very courageous and ferocious in its conduct. Ceaseless warfare against the rat is necessary to get rid of him and also to prevent his further introduction into any country. The book will be found valuable to everyone confronted by the rat pest.

### A Study of Alabama Coals.

Information regarding the analysis, heating value and other characteristics of numerous Alabama coals is given in Technical Paper 347, issued by the Bureau of Mines.

The coal-bearing rocks of Alabama form the southern end of the Appalachian coal region, and are naturally divided into four more or less completely separated fields, which are, in order of importance, the Warrior, Cahaba, Coosa and Plateau, the Bureau points out.

The Warrior field is the greatly expanded southern end of the Appalachian region. It occupies all or parts of Jefferson, Walker, Tuscaloosa, Fayette, Marion, Winston, Cullman, Lawrence and Franklin counties, but the main productive part includes only the first four of these counties. Its known area is computed to be 4000 square miles, but as it extends westward and southward an unknown distance beneath the cover of younger rocks its probable area is much greater. The Cahaba is a long, narrow field extending northeast-southwest and lying about seven miles southeast of the Warrior field, from which it is separated by Birmingham Valley. Its length is about 60 miles and its general width five or six miles, but at its southwest end it expands to a width of 15 miles. Its area is about 350 square miles. The Coosa field lies two to five miles southeast of the Cahaba field, from which it is separated by Cahaba Valley. It is also long and narrow, having a length of 51 miles and a width of about 5 miles. The Plateau field is less well defined by natural boundaries than the others, being a part of the northwestward continuation of the Warrior field.

Coal production in Alabama during 1924 amounted to approximately 19,500,000 tons, compared with 16,111,462 tons in 1910 and 8,394,275 tons in 1900. Over 99 per cent of the coal mined is derived from the Cahaba and Warrior fields; the production of the Warrior field approximates six to seven times that of the Cahaba. The coal is used for steam, coking and domestic purposes, and is consumed mostly within a comparatively short distance from the mines.

About 50 per cent of the coal produced in the state is cleaned before shipment; washeries and mechanical cleaners are extensively used. About 35 per cent of the annual coal output is manufactured into metallurgical coke and by-products. The bulk of the coke made is used mainly in the blast furnaces of the Birmingham district, which is the center of the iron and steel industry of the South. Most of the coking coal comes from the beds of the Warrior field.

Mining is done in more than 30 workable beds, which range in thickness from about 2 to 10 feet, with an average thickness of 4 feet.

In Alabama 45 to 60 per cent of the coal is usually extracted in first mining. The percentage of recovery ranges from 55 to 90 per cent, but the average can reasonably be placed at 75 per cent.

In addition to detailed tables giving results of analyses of numerous coals as determined by the Bureau of Mines, Technical Paper 347 includes a chapter on the geology of the coal fields of Alabama, statistics relative to coal production in that state and a description of the mining methods employed in the state.

One of the important functions of the Bureau of Mines has been the analyzing of samples of coal from every coal-mining state and from Alaska. The analyses are being published for the information of Government officials and the public. The results of these analyses are being incorporated in a series of inexpensive publications by separate states. The paper dealing with Alabama coals is fifth of the series, papers relating to the coals of Iowa, Kentucky, Ohio and Utah having already been published. Reports dealing with the coals of Tennessee, Virginia and Missouri will shortly be issued.

### \$7,659,000 Bonds Voted by Fort Worth.

Fort Worth, Texas.—Improvement bonds totaling \$7,659,000 were voted by the city of Fort Worth at an election held November 24. A bond issue of \$2,000,000 approved a few months ago for the construction of new school buildings brings the total amount now available for improvements by the city up to about \$10,000,000.

Seven different issues were submitted to the voters and all carried, including \$3,300,000 for sewer and water extensions; \$2,200,000 for street widening, paving and extensions; \$1,400,000 for main traffic routes across the city; \$500,000 for park sites; \$170,000 for recreational facilities; \$71,000 for incinerators; \$18,000 for hospital annex.

### \$1,425,000 Bonds Proposed for Port Improvements.

St. Petersburg, Fla.—The City Council has passed a resolution providing for a bond issue of \$1,425,000 to be used in additional port improvements. There are three essential features in the plan: Immediate construction of additional warehouse facilities on the dock; construction of a pier 150 by 1000 feet, with a slip; dredging the entire turning basin and entrance channel to a depth of 27 feet.

Moore & McCormack Co., Inc., have representatives here now arranging for weekly service on a route from Philadelphia to Tampa, St. Petersburg and New Orleans.

### \$250,000 Bus Terminal for Baltimore.

Plans have been completed by Charles M. Anderson, architect, for a motorbus terminal to be erected at the southwest corner of Redwood and Liberty streets, Baltimore, for the Union Bus Terminal Co., of which Edmund J. Wachter is president. Contract for the work has been awarded the Consolidated Engineering Co.

The structure will be three stories high, of Colonial brick, with limestone trim and granite base, 83 by 90 feet.

### Office Building and Apartment to Cost \$650,000.

St. Petersburg, Fla.—Plans for the erection here of a 10-story store and office building and a 3-story apartment house to cost \$350,000 and \$300,000, respectively, have been announced by Frank B. Mills and John L. Landis of Cleveland, Ohio. Sites for the two structures have been secured, and plans for both buildings are now being prepared by O. H. Round and Lester Avery, local architects.

### New Orleans to Rebuild Waterfront Facilities.

New Orleans, La.—Preliminary work is well under way to replace the recently destroyed wharves and shipping facilities here at a loss of \$4,000,000. The Dock Board took immediate action to speed up the clearing of the debris and to facilitate rebuilding. The most modern type of structures of fireproof construction will be erected.

### Will Erect \$500,000 Hotel in Florida.

Fort Lauderdale, Fla.—The Riveria Hotel Co., controlled by Grand Rapids (Mich.) interests, plans to erect here a 200-room hotel costing \$500,000. The new hotel will be three stories high, 275 by 350 feet, of reinforced concrete with stucco finish and Spanish architecture.

### Orlando Offers \$2,460,000 Bonds.

Orlando, Fla.—The City Council will receive bids on December 12 for \$2,460,000 bonds, including \$410,000 for sewers and \$2,050,000 for paving. The bonds will bear 5 per cent interest.



# Smooth after Decades



**C**AST Iron Pipe, 48" in diameter, temporarily removed after 30 years of service. As the photograph shows this pipe still affords the maximum carrying capacity after serving the city for many years.

In most sections of the country Cast Iron Pipe retains its carrying capacity indefinitely. For the few waters that tuberculate this material can be furnished with a cement lining which effectively prevents the water from coming in contact with the metal. This eliminates the necessity of using any substitute for the accepted standard, Cast Iron Pipe.

*Write for details on cement lining.*

## United States Cast Iron Pipe and Foundry Co.

GENERAL OFFICE: BURLINGTON, NEW JERSEY

### SALES OFFICES:

Philadelphia—1421 Chestnut Street  
New York—71 Broadway  
Pittsburgh—Henry W. Oliver Bldg.  
Dallas, Texas—Magnolia Bldg.

Chicago—122 South Michigan Boulevard  
Cleveland, Ohio—1150 E. 26th St., N. E.  
Birmingham, Ala.—1711 American Trust Bldg.

San Francisco—Monadnock Building  
Minneapolis—Plymouth Building  
Buffalo—957 E. Ferry St.  
Kansas City—Interstate Bldg.

# FINANCIAL NEWS

## Bond Issues Proposed

Ala., Foley—Water Works—City voted \$29,500 bonds. Address City Clk.

Ala., Linden—Funding—Marengo County Board of Revenue, E. A. Barley, receives bids Dec. 7 for \$250,000 5½% bonds.

Ala., Northport—Water Works, Sewers—Town, J. S. Rice, Clk., will call election Dec. 22 on \$40,000 6% bonds; S. Z. Darden, Mayor.

Ark., Siloam Springs—Paving—City plans receiving bids in about 30 days for \$63,000 bonds. Address City Clk.

Fla., Bartow—Road—Polk County Commrs., J. D. Raulerson, Clk., receives bids Dec. 18 for \$350,000 6% \$1000 denom. warrants.

Fla., Bradenton—Manatee County Commrs., Robt. H. Roesch, Clk., receives bids Dec. 7 for \$200,000 5% \$1000 denom. and \$1,050,000 5½% \$1000 denom. road bonds.

Fla., Bradenton—Sidewalks—City, Roy K. Van Camp, Commr. of Public Works, receives bids Dec. 8 for \$10,000 bonds.

Fla., Bradenton—Street—City votes Dec. 21 on \$250,000 bonds; Roy K. Van Camp, Commr. of Public Works.

Fla., Bradenton—Waterfront Improvement—City votes Dec. 29 on \$265,000 bonds; Roy K. Van Camp, Commr. of Public Works.

Fla., Brooksville—Road—Hernando County Commrs., H. C. Miekler, Clk., receive bids Dec. 7 for \$1,000,000 5½% \$1000 denom. bonds.

Fla., Crystal River—Municipal Improvement—Town, Horace N. Blanton, Mgr., will receive bids in about 30 days for \$120,000 bonds.\*

Fla., De Funiak Springs—Road—Walton County Commrs. contemplate \$750,000 bond issue.

Fla., DeLand—Road—Volusia County Commrs. contemplate \$190,000 bond issue.

Fla., Fort Lauderdale—Public Improvement—City Comm. plans \$5,000,000 bond election.

Fla., Fort Lauderdale—Bridge—City Commrs. contemplate bond election in Jan.

Fla., Fort Meade—Municipal Improvement—City Comm. plans \$340,000 bond election: \$170,000, paving; \$65,000, extension of water and fire protection; \$30,000, city hall.

Fla., Fort Pierce—Inlet—St. Lucie County Commrs. contemplate \$500,000 bond election.

Fla., Key West—Bridge—Monroe County Commrs. contemplate bond issue.

Fla., Lake City—School—School Board, Col. J. B. Hodges, Chmn., plans \$175,000 bond election.

Fla., Miami—Municipal Improvement—Dade County Commrs. receive bids Dec. 10 for \$810,000 bonds: \$30,000, causeway improvement; \$157,000, West Dixie Highway; \$253,000, general highway; \$100,000, armory.

Fla., New Smyrna—Bridge—Volusia County Commrs., DeLand, contemplate \$25,000 time warrants.

Fla., New Smyrna—Municipal Improvement—City plans \$105,000 time warrants: \$50,000, extend electrical distribution system; \$30,000, street; \$25,000, purchase hydraulic dredge. Address City Clk.

Fla., Orlando—Municipal Improvement—City, J. A. Stinson, Clk., receives bids Dec. 12 for \$410,000 sewer and \$2,050,000 paving 5% bonds.

Fla., Perry—Road—Taylor County voted \$1,500,000 bonds. Address County Commrs.

Fla., Punta Gorda—City Hall—City plans \$50,000 bond issue about first of year. Address City Clk.\*

Fla., Plant City—Paving—City, W. H. Durrance, Clk., rejected bids for \$104,000 6% bonds.\*

Fla., St. Augustine—Bridge—St. Johns County Commrs. plan \$300,000 bond issue to complete Matanzas River Bridge.

Fla., St. Petersburg—Port Development—City, J. P. O'Connor, Director of Public Relations, plans \$1,425,000 bond issue for additional warehousing facilities on dock, additional pier, dredging turning basin.

Fla., Sarasota—School—Board of Public Instruction of Sarasota County, T. W. Yarbrough, Secretary, receives bids Dec. 7 for \$40,000 5% \$500 denom. Special Tax School Dist. No. 5 bonds.

Fla., Sarasota—Water Works—City, J. R.

Brumby, Jr., Commr. of Public Works, voted \$150,000 bonds.\*

Fla., Tampa—School—Hillsborough County Board of Public Instruction will call election in Lake Magdalene School Dist. on \$60,000 bonds.

Ga., Atlanta—Paving—City contemplates \$91,930 bond issue. Address City Clk.

Ga., Bainbridge—Road—Decatur County contemplates \$500,000 bond election. Address County Commrs.

Ga., Fitzgerald—School, Paving—City, J. H. Mayes, Mayor, receives bids Dec. 23 for \$90,000 5% \$1000 denom. bonds; G. E. Usher, Supt. of Schools.\*

Ga., Folkston—School—Charlton County, Folkston Dist., contemplates \$50,000 bond election. Address Pres. Board of Education.

Ga., Fort Valley—Road—Peach County plans bond election. Address County Commrs.

Ga., Jackson—Road—Butts County Commrs. contemplate \$100,000 bond election.

Ga., Oglethorpe—Road—Macon County voted \$100,000 bonds. Address County Commrs.

Ga., Waynesboro—Burke County reported voted \$600,000 road and \$75,000 Waynesboro School Dist. bonds. Address County Commrs.

La., Boyce—School—Rapides Parish School Board, W. J. Avery, Supt., votes Dec. 16 on \$225,000 Cotile School Dist. No. 22 bonds.

La., Crowley—Jail, etc.—Acadia Parish Police Jury plans selling \$70,000 bonds.

La., De Ridder—Revenue—Beauregard Parish voted \$126,000 bonds. Address Parish Police Jury.

La., Ponchatoula—Buildings—City, E. D. Parker, Clk., plans bond election for city hall, jail and engine house.

Md., Cambridge—City Hall—Town Commrs. contemplate \$60,000 bond issue.

Miss., Belzoni—Road—Humphreys County Commrs., A. R. Hutchins, Clk., receives bids Jan. 4 for \$100,000 5½% \$1000 denom. Separate Road Dist. bonds.

Miss., Canton—Road—Madison County Board of Suprs. contemplates bond issue.

Mo., Clayton—Road—St. Louis County voted \$5,000,000 bonds. Address County Commrs.

Mo., Crane—Water Works—City votes Dec. 15 on bonds. Address City Clk.

Mo., Mexico—School—City voted \$300,000 bonds. Address City Clk.\*

Mo., Sweet Springs—Water, Sewer—City defeated \$110,000 bond issue. Address City Clerk.\*

N. C., Elon College—Municipal Improvement—Town, E. B. Huffine, Clk., receives bids Dec. 8 for \$40,000 6% bonds: \$29,000, \$500 denom., water; \$11,000, \$1000 denom., sidewalk.

N. C., Morehead—City—Public Improvement—Town, W. J. Plint, Clk., receives bids Dec. 14 for \$200,000 6% bonds.

N. C., Raleigh—School—Chamber of Commerce interested in \$1,350,000 bond issue.

N. C., Rowland—Street—Town, W. D. McCallum, Clk., receives bids Dec. 14 for \$75,000 6% \$1000 denom. bonds.

Okl., Oklahoma City—Sewage Disposal—City, Warren E. Moore, Commr. of Public Works, plans calling election in Dec. on \$950,000 bonds.\*

S. C., Dillon—School—Board of Trustees, J. M. Sprunt, Jr., Clk., receives bids Dec. 7 for \$48,000 6% bonds.

S. C., Laurens—Road—Laurens County Highway Comn., J. P. Jacobs, Vice-Chmn., plans issuing \$200,000 5% notes.\*

S. C., Pickens—Paving—City voted \$14,000 bonds; Charles H. Cureton, Mayor.\*

Tenn., Knoxville—Paving—City plans \$300,000 bond issues. Address City Clk.

Tenn., Madisonville—Highway—Monroe County Court, C. A. Kennedy, County Judge, receives bids Dec. 19 for \$20,000 6% bonds.

Tenn., Memphis—Municipal Improvement—City, C. C. Pashby, Clk., receives bids Dec. 8 for \$785,000 4 to 5½% bonds: \$500,000, improvement; \$125,000, hospital; \$160,000, special assessment Street improvement.

Tenn., Sevierville—Road—Sevier County voted \$100,000 bonds; W. L. Trotter, County Chmn.\*

Tex., Alamo—Water Works—City, C. C. Stotler, Clk., voted \$25,000 bonds; receives

bids Dec. 5 for \$25,000 5, 5½ and 6% bonds; Frank J. Denzer, Mayor.

Tex., Coleman—Paving—City voted \$75,000 bonds; J. S. Murchison, Mayor.

Tex., Corsicana—Sewer—City, J. P. Welch, Sec., voted \$50,000 bonds.\*

Tex., Corsicana—Municipal Improvement—City, J. P. Welch, Sec., voted \$300,000 bonds: \$150,000, schools; \$75,000, paving; \$20,000, park; \$5000, library improvement.\*

Tex., Cuero—Road, Bridge—De Witt County, Dist. No. 1, voted \$200,000 bonds. Address County Commrs.\*

Tex., Dallas—School—Highland Park Board of Education, J. S. Bradford, Pres., 1305 Elm St., Dallas, will call election Dec. 19 on \$250,000 Highland Park bonds.

Tex., Edinburg—Road—Hidalgo County, A. W. Cameron, County Judge, voted Dec. 22 on \$3,500,000 bonds.\*

Tex., Fort Worth—Municipal Improvement—City voted \$7,659,000 bonds: \$3,300,000 sewer and water extension, \$2,200,000 street widening and paving, bridges and subway grade separations, \$1,400,000 main traffic routes across city, \$71,000 incinerators, \$170,000 additional recreation facilities, \$500,000 park sites, \$18,000 city's share City-County Hospital. Address City Mgr. Carr.\*

Tex., Galveston—Municipal Improvement—City Commrs. receive bids Dec. 10 for \$2,000,000 additional grade raising, and \$75,000 incinerator bonds; Chas. A. Holt, City Engr.

Tex., Kemp—City voted \$85,000 water and \$30,000 sewer bonds; Koch & Fowler, Engrs., 603 Central Bank Bldg., Dallas.\*

Tex., Memphis—Paving—City votes Dec. 15 on \$50,000 bonds. Address The Mayor.

Tex., Rlogrande—Water Control, etc.—Starr County Water Control & Improvement Dist. No. 1, H. Garza, Judge, votes Dec. 12 on \$25,000 bonds.

Tex., San Antonio—Municipal Improvement—City, John W. Tobin, Mayor, receives bids Dec. 21 for \$1,000,000 4½% bonds.\*

Tex., San Benito—School—School Board, G. C. Jones, Supt. of Schools, contemplates \$125,000 bond issue.

Tex., Sherman—Street—City, J. A. Henderson, Clk., receives bids Dec. 21 for \$100,000 4½% bonds.\*

Tex., Slaton—Paving—City, Harvey Austin, Sec., voted \$100,000 bonds; S. F. King, Mayor.\*

Tex., Snyder—School—Scurry County, Independent School Dist., voted \$75,000 bonds. Address Board of Directors.\*

Tex., Victoria—Road—Victoria County Commrs. will call election Dec. 26 on \$1,700,000 bonds.

Tex., Victoria—Road—Victoria County, P. P. Putney, County Judge, voted \$77,000 bonds.\*

Va., Lynchburg—Improvement—City, R. W. B. Hart, Acting City Mgr., will receive bids for \$1,180,000 bonds.

## Bond Issues Sold

Ark., Fayetteville—Indebtedness—City sold \$73,000 6% \$500 and \$1000 denom. bonds to M. W. Elkins Co., 217 W. Second St., Little Rock, at \$104.01.

Ark., Fordyce—City will sell \$17,900 5% bonds to Simmons National Bank, Pine Bluff, at par.

Ark., Helena—River Terminal—City sold \$225,000 5½% bonds to M. W. Elkins & Co., 217 W. Second St., Little Rock, at 102.94 and accrued interest.

Ark., Osceola—Drainage—Mississippi County Commrs. of Sub-district No. 3 to Drainage Dist. No. 9, sold \$1,750,000 5% bonds to Merchants Trust Co., Chicago, Ill., at 95.72.

Ark., Osceola—Drainage—Mississippi County Commrs., Sub-district No. 1 to Carson Lake Drainage Dist. No. 8, sold \$750,000 5% bonds to Wm. R. Compton & Co., and associates, St. Louis, at 96.137.

Fla., Coral Gables—City, Edwin G. Bishop, Clk., sold \$550,000 5½% bonds to Miami Mortgage & Guaranty Co., Lorraine Arcade, at 97.

Fla., Fort Lauderdale—School—Jas. H. Rickards, Supt. of Public Instruction, sold \$300,000 5½% bonds to Prudden & Co., Toledo, Ohio: \$200,000, Special Tax School Dist. No. 3, at premium of \$3.177; \$100,000, Special Tax School Dist. No. 4, at premium of \$1588.\*

(Continued on page 134.)

In writing to parties mentioned in this department it will be of advantage to all concerned if the Manufacturers Record is mentioned.



## Surplus Funds

**I**N these days of complex business and rapidly changing trade conditions, it becomes increasingly necessary for concerns to maintain adequate reserves and contingency funds for various purposes.

The proper temporary investment of these funds so as to insure a satisfactory return as well as safety of principal, should be carefully considered.

If you have such a fund, why not consult us regarding its investment? Our Company has no securities to sell, but is thoroughly experienced in the investment of funds for its clients.

Write us today, or plan to come in to see us on your next trip to New York.



## Bank of New York & Trust Company

Capital, Surplus and Undivided Profits  
over \$16,000,000

NEW YORK, N. Y.

### IN RICHMOND VIRGINIA

The First National Bank offers complete facilities for quick collections in this territory.

### FIRST NATIONAL BANK

JOHN M. MILLER, JR.,  
President

Resources over \$30,000,000  
Capital and Surplus \$4,000,000

Underwriters and Distributors of  
Municipal and Corporation Bonds

### OTIS & CO.

Established 1899

CLEVELAND

New York Chicago Detroit Cincinnati Denver  
Columbus Toledo Akron Colorado Springs

### FOURTH NATIONAL BANK MACON, GA.

In close touch with all of Georgia, offers its aid to those interested in that State.

### MARYLAND TRUST COMPANY

BALTIMORE

Transacts a General Trust and Banking Business

Correspondence and interviews invited

CAPITAL, \$1,000,000

## 1884

Southern men and women who lived in, or visited Baltimore in the period when this Company was established—which was the year of 1884—will be interested, we believe, in our anniversary book "The Early Eighties: Sidelights on the Baltimore of forty years ago." A copy will be sent upon request.

### MERCANTILE TRUST & DEPOSIT CO. OF BALTIMORE

Resources \$21,000,000 A. H. S. POST, Pres. F. G. BOYCE, Jr., Vice-Pres.

### Does Your Banking Connection

meet all of your  
business requirements?

Write us.

*We invite your inspection of our modern, burglar-proof and fireproof Safety Deposit Vaults, which may be rented at small cost.*

### BALTIMORE COMMERCIAL BANK

GWYNN CROWTHER, President

26 South Street, Baltimore, Md.

Capital and Surplus \$1,000,000.00 - Member Federal Reserve System

## FINANCIAL NEWS

(Continued from page 132.)

Fla., Pinellas Park—Municipal Improvement—City, P. J. McDevitt, Mayor, sold \$578,500 6% bonds to D. R. Durrance, Palm Beach.\*

Fla., West Palm Beach—School—Palm Beach County Board of Education, J. A. Youngblood, Sec., sold jointly to Prudden & Co., Seaboard & Mayer and Provident Savings & Trust Co. \$775,000 bonds: \$500,000, West Palm Beach, at \$505,000; \$175,000, Lake Worth, at \$171,675; \$100,000, Jupiter, at \$98,100.\*

Fla., West Palm Beach—Street Paving—City Commrs., H. J. Daugherty, Clk., sold \$1,850,000 bonds to A. C. Allyn & Co., 65 W. Monroe St., and Morris Mather, 111 W. Monroe St., Chicago, Ill., at 98% and accrued interest.

Ga., Louisville—Road—Jefferson County voted \$250,000 bonds. Address Board of Roads and Revenues.\*

La., New Orleans—School—Orleans Parish School Board sold \$1,500,000 4 3/4% coupon bonds to syndicate composed of First Chicago Corp., Chicago; Detroit Co., Detroit, Mich.; Northern Trust Co., LaSalle and Monroe Sts., and Ames, Emerich & Co., 105 S. LaSalle St., both Chicago, at 100.40.\*

Miss., Port Gibson—Bridge—Clalborne County Commrs. sold \$35,000 5 1/4% bonds to Meridian Financial Corp., Meridian, Miss., at premium of \$52.20.\*

N. C., Belhaven—Paving—City, F. M. Bishop, Clk., sold \$37,000 6% bonds to Hanchett Bond Co., 39 S. LaSalle St., Chicago, Ill., at \$37,518 and accrued interest.\*

N. C., Canton—Town, R. D. Coleman, Clk., sold \$275,000 bonds to A. T. Bell & Co., and W. K. Terry & Co., both Toledo; \$225,000, street improvement, at premium of \$1103; \$50,000, water, at premium of \$97.\*

S. C., Charleston—Paving—City, W. S. Smith, Treas., sold \$228,000 5% bonds to Barr Bros. & Co., 14 Wall St., New York, at \$232,993.\*

Tenn., Sevierville—Road—Sevier County, W. L. Trotter, County Chmn., sold \$50,000 bonds to Caldwell & Co., Nashville, and \$50,000 bonds to I. B. Tigrett & Co., Jackson.\*

Tex., Gilmer—Paving—City, L. G. Martin, Sec., sold \$25,000 5 1/2% bonds to Garrett & Co., Dallas, Magnolia Bldg., Dallas, at 102 net and accrued interest.\*

Tex., Houston—School—Board of Education, H. L. Mills, Bus. Mgr., sold \$1,332,000 bonds to Guaranty Trust Co., 140 Broadway, New York, at par, accrued interest and premium of \$55,665; \$168,000 bonds to School Board at par.\*

Tex., Kemp—City sold \$85,000 water and \$30,000 sewer bonds to Brown, Crummer Co.\*

Va., Warrenton—Road—Fauquier County Board of Supvrs., T. E. Bartenstein, Clk., Circuit Court, sold \$120,000 5% Marshall Dist. bonds to Farquhar National Bank, Warrenton, at \$124,020 and accrued interest.\*

## Building and Loan Associations

Tex., Ranger—Ranger Building & Loan Assn., capital \$1,000,000, incorporated; S. A. Lillard, Jr.; E. A. Ringold.

## New Financial Corporations

Ala., Goodwater—First National Bank of Goodwater, capital \$30,000, organized; W. R. Dean, Correspondent.

Fla., Daytona Beach—Commonwealth Bond & Mortgage Co. of Belleair Estates, Clearwater, capital \$500,000, organized; Perry L. Patterson, Pres.; O. Sam Cummings, Sec. Treas.

Fla., Miami—Flodade Corp., 75 Flagler St., organized; E. N. Baty, Fleetwood Hotel, Miami, Fla., V.-P. and Gen. Mgr.

Fla., Seffner—Bank of Plant City, Wm. Schneider, Pres., Plant City, plans establishing bank in Seffner.

Fla., Wimauma—Wimauma Bank & Trust

Co., Lake and Fifth Sts., capital \$25,000, incorporated; P. D. B. Stansell, Pres.; J. C. Flener, Cashier.\*

La., Crowley—Acadia Securities Co., capital \$25,000, chartered; Dr. F. N. Hayes, Pres., Iota; R. L. Branson, Sec. Treas., Crowley.

La., New Orleans—Security Finance & Development, capital \$15,000, Alphonse E. Boger, Pres., Lafayette Hotel.

La., New Orleans—Marine Bank & Trust Co., L. M. Pool, Pres., plans increasing capital, \$1,500,000 to \$2,000,000.

Md., Baltimore—Federal Finance & Credit Co., 704 Citizens National Bank Bldg., incorporated; Wm. C. Conwell.

Mo., Caruthersville—Auto Acceptance Corp., capital \$50,000, incorporated; John A. Riggs, J. L. Van Ausdall.

Mo., Kansas City—Mortgage & Acceptance Corp., capital \$50,000, incorporated; Frank W. Hempstone, 312 Board of Trade Bldg.

Mo., Springfield—Bankers Loan & Investment Co., capital \$25,000, incorporated; Phil A. Bennett, 861 N. Jefferson St.

Mo., St. Louis—Holland Building & Investment Co., incorporated; R. G. Scott, 5328 Delmar Blvd.

Mo., St. Louis—Waltke Investment Co., capital \$2,000,000, incorporated; Louis H. Waltke, Pres., Second St. and E. Grand Ave.

Mo., St. Louis—Missouri Globe Finance Co., incorporated; Arnold Just, 5500 Co-hanne St.

Mo., St. Louis—Holland Corp., incorporated; Oron E. Scott, 5211 Westminster St.

N. C., High Point—Hood System Industrial Bank of High Point, capital \$100,000, incorporated; T. A. Kearns, J. Allen, Austin.

Okla., Blackwell—Blackwell Industrial Finance & Investment Co., capital \$200,000, incorporated; L. E. Troxel; C. B. Bechtel.

S. C., Norris—Blue Ridge Bank of Norris, capital \$20,000, chartered; James P. Carey, Jr., Pres.; D. C. Garrett, Cashier.

## Southern Bankers for Southern Corporations

Up until a few years ago, Southern industrial corporations which needed capital for business advancement were largely forced to go to the bankers of other sections for their funds. The growth of Southern investment banking in recent years, however, has made possible the further development of Southern industries by means of capital from all sections of the country supplied through Southern bankers.

Rapid industrial progress has been made in the South during the last ten years. This progress, which will undoubtedly continue in increasing volume, will demand a constantly increasing volume of corporate financing. To continue to take our part in this development, we have enlarged our Corporation Department so as to be prepared to render even broader service to the South and Southern corporations.

This department devotes its entire time to the purchase and underwriting of corporate securities and to providing financial advisory service for Southern corporations. Its experts are able to analyze the financial position of companies and to suggest improvement, in many cases, through additional capital or re-arrangement of capital structure. Where new financing is needed, they are able to suggest the best type of financing, both from the standpoint of the company and of the investor.

The experience and facilities of our Corporation Department are at the disposal of Southern corporations which may be contemplating additions to plants or working capital, or readjustment of capital structure. Officials are invited to open a discussion of their financial programs with this department.

All communications should be addressed to Corporation Department.

"We bank on the South."

### Caldwell & Company

Investment Securities

400 Union Street

Nashville, Tennessee

Offices in Principal Cities



**THE BANK OF ALABAMA**

ENSLEY, ALABAMA

R. A. TERRELL ..... President  
 J. W. MINOR ..... Vice-President  
 FOSTER HAMILTON ..... Cashier

We Solicit Your Business

**Wright, Warlow & Co.**

Municipal and Corporation Bonds

Specializing in the preparation of legal proceedings for municipal bond issues

Tampa

Fifth Floor State Bank Bldg.  
ORLANDO FLORIDA St. Petersburg**WE BUY MUNICIPAL BONDS**

We are interested in the purchase of  
 Southern Municipals including road,  
 school, county, drainage and levee bonds.

**M. W. ELKINS & CO.**

Southern Trust Bldg. Little Rock, Ark.

**RAILROAD, PUBLIC UTILITY  
and INDUSTRIAL BONDS**

Entire Issues Bought

**ROGER B. WILLIAMS, Jr. & CO.**

Investments Bonds

67 Wall Street New York

**We Buy Bonds**  
City, County, School and Road from  
Municipalities and Contractors

WRITE

**THE PROVIDENT SAVINGS BANK & TRUST CO.**  
CINCINNATI OHIO**HAVE YOU BONDS FOR SALE?**

WE BUY ALL CLASSES OF MUNICIPAL BONDS,  
 INCLUDING CITY, COUNTY, SCHOOL,  
 PAVING, ROAD AND DRAINAGE

*The Hanchett Bond Co. Inc.*

39 SOUTH LA SALLE ST., CHICAGO

**Municipal Bonds**

Inquiries invited from municipalities and contractors.  
 We buy city, county, district, school, road, lighting, water  
 works and other municipal issues.

**A.C. ALLYN AND COMPANY**

67 W. Monroe St., Chicago, Ill.

New York Boston Philadelphia Milwaukee Minneapolis

**JOHN NUVEEN & CO.**

First National Bank Building

CHICAGO

We purchase SCHOOL, COUNTY and MUNICIPAL  
 BONDS. Southern Municipal Bonds a Specialty.

Write us if you have bonds for sale

**LOANS TO STATES, COUNTIES AND CITIES****Municipal Bonds****EYER & CO.**

Established 1907

Correspondence Invited

46 Cedar Street

New York City

**WE ARE  
MUNICIPAL BOND BUYERS***"Always In The Market"***The Weil, Roth & Irving Co.**  
Dixie Terminal Bldg. Cincinnati, O.**REAL ESTATE MORTGAGE BONDS**

We are interested in the purchase of first mortgage  
 bond issues covering business property, hotels, apartment  
 houses, etc., in amounts of \$50,000 and upwards. Entire  
 issues city, county and district bonds purchased.

**MARX AND CO.**

Brown-Marx Bldg.

Birmingham, Ala.

**FIRST MORTGAGE REAL ESTATE BONDS**

We finance the erection of apartments, office buildings and  
 other business property, through purchase of first mortgage  
 bond issues, in amounts of \$50,000 to \$200,000. Larger  
 loans for construction and on completed buildings negotiated  
 through our New York connections.

**BRANNAN, BECKHAM & COMPANY**

Wynne-Claughton Bldg.

Atlanta, Georgia

We Buy and Sell

**MUNICIPAL BONDS AND NOTES****CORPORATE PREFERRED****STOCK and BOND ISSUES**

See Us on Southern Financing

**R. S. DICKSON & CO.,** Gastonia, N. C.  
New York Greenville, S. C. Goldsboro, N. C.**BLACK & COMPANY**

(WILMER BLACK, C.P.A.)

**CERTIFIED PUBLIC ACCOUNTANTS**

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100 West Tenth Street

Wilmington, Del.

J. Ernest Smith, President and General Counsel.  
 Chas. Warner Smith, Vice-President.  
 Harry W. Davis, Secretary and Treasurer.

**W. P. HILTON**

Certified Public Accountant (Va.) Industrial Engineer

Suite 717, National Bank of Commerce Bldg.

NORFOLK, VIRGINIA

INVESTIGATIONS FOR FINANCING PURPOSES  
 COST SYSTEMS AND MANAGEMENT SURVEYS

## INDUSTRIAL NEWS OF INTEREST

Items of news about industrial, railroad or financial interests, building operations, construction work, municipal improvements, or the sale of machinery or the letting of contracts in the South or Southwest, are invited from our readers whether they are advertisers, or subscribers, or not. We invite information of this character from readers in the North and West about their Southern business operations, as well as from Southern readers. News of value will be published just as readily when from non-advertisers as from advertisers.

### Sales Representative Appointed.

The Climax Engineering Company, Clinton, Iowa, has appointed T. L. Keeling to be sales representative in Cleveland, Ohio, with offices at 657 Leader Building, in that city. He will have charge of sales of Climax Trustworthy Engines in Ohio, western New York and western Pennsylvania. He has been with the Climax organization for five years and is expert concerning industrial gas engines.

### New Position Indicator.

A device which automatically indicates the position of the main circuit contacts of a totally enclosed water-tight circuit breaker without the cover being removed or the casing in any way disturbed has been devised and is used on the New F-11 subway oil circuit-breaker by the Westinghouse Electric & Manufacturing Company. It will save considerable time and annoyance to operators where frequent changes must be made of interrupters located in tunnels or other places where waterproof cases are necessary.

### Allis-Chalmers in Peru and Bolivia.

The Allis-Chalmers Manufacturing Co. of Milwaukee, Wis., has opened a new district office in Lima, Peru, under the charge of W. G. Bolton, this office being a branch of the office at Santiago, Chile, of which W. R. Judson is manager. The office at Oruro, Bolivia, is now under the charge of P. G. Gillard, successor to Erling Winsnes, who has returned to the United States. It is also a branch of the Santiago office.

### General Electric Buses for Miami, Fla.

A fleet of twenty-five gas-electric buses will be used in Miami, Fla., to meet the increased demands for transportation resulting from the rapid growth of the city. Not only are present routes to be extended but new routes must be added. The type of bus selected by the Miami Electric Railway Co. for this service is the Fageol-General Electric single-deck bus, with a seating capacity of twenty-nine passengers, which has a six-cylinder Hall-Scott gasoline engine, direct connected to a General Electric generator, which in turn supplies power to the electric motors that

drive the wheels. The General Electric Co. says that Miami is the seventh city to use the gas-electric type of bus since it was introduced a little over a year ago, the other places being Philadelphia, Atlanta, Albany, Kansas City, Los Angeles and Portland, Ore.

### Whiting Corporation Changes.

On November 6 J. H. Whiting was elected chairman of the board of the Whiting Corporation, Harvey, Ill., and Col. T. S. Hammond, for many years vice-president and secretary, succeeded him as president and treasurer, while R. A. Pascoe succeeded Col. Hammond as secretary. R. H. Bourne succeeds Col. Hammond as president of the Grindle Fuel Equipment Co. and will also continue as vice-president and sales manager of the Whiting Corporation. N. S. Lawrence is president of the Swenson Evaporator Co. and vice-president and assistant sales manager of the Whiting Corporation. The Grindle and the Swenson organizations are subsidiaries of the Whiting company. J. H. Whiting will continue to be actively engaged in the business. No change of policy is involved.

### W. H. Patterson Now With Westinghouse.

W. H. Patterson, formerly vice-president of the Kaestner & Hecht Elevator Co. of Chicago and later vice-president of the John H. Dunham advertising Agency of that city, has joined the Industrial Sales Department of the Westinghouse Electric & Manufacturing Co. at East Pittsburgh, Pa. He will be in charge of the building industries division.



## PROPOSALS

BOND ISSUES

BUILDINGS

PAVING

GOOD ROADS



Bids close December 22, 1925.

SEALED PROPOSALS will be received by the U. S. Veterans' Bureau, Room 701 Arlington Building, Washington, D. C., until 11 A. M. December 22, 1925, and then and there publicly opened, for the construction complete of an Administration Building, inclusive of a two-story and basement connection to an existing building, certain alterations of exterior openings in the existing building, and an extension of a driveway to be built at U. S. Veterans' Hospital No. 48, Atlanta, Ga. This work will include plain and reinforced concrete construction, hollow tile, brick work, marble work, floor tile, tile and built-up roofing, metal lathing, plastering, carpentry, insect screens, hardware, painting, glazing, plumbing, heating and electrical work, electric elevator, refrigerating plant and outside service connections. SEPARATE PROPOSALS will be received for Elevator and Ice-Making and Refrigerating Plant, as all set forth on proposal sheet. Proposals will be considered only from individuals, firms or corporations possessing satisfactory financial and technical ability, equipment and organization to insure speedy completion of the contract, and in making awards the records of bidders for expeditious and satisfactory performance of contracts of similar character and magnitude will be carefully considered. At the discretion of the Director, drawings and specifications may be obtained upon application to the Construction Division, Room 701, Arlington Building, Washington, D. C., or from the Medical Officer in Charge at the above-mentioned hospital. Deposit with application of a check or postal money order for \$20, payable to the TREASURER OF THE UNITED STATES is required as security for safe return of the drawings and specifications within ten days after date of opening proposals. FRANK T. HINES, Director. November 20, 1925.

Bids close December 16, 1925.

### Improvement to School Area and Playground

Baltimore, Md., December 1, 1925. PROPOSALS will be received by the BOARD OF AWARDS OF BALTIMORE CITY for furnishing all permits, labor, tools and materials necessary for grading, filling, surfacing, drainage, concrete work and fences for improving the area and playground work at ROGNEL HEIGHTS-TEN HILLS SCHOOL, Dryden Drive and Rokeby Road, for the MAYOR AND CITY COUNCIL.

BIDS must be executed in duplicate and enclosed in sealed envelopes, addressed to the BOARD OF AWARDS OF BALTIMORE CITY, marked on the outside:

"PROPOSALS FOR IMPROVING THE AREA AND PLAYGROUND AT ROGNEL HEIGHTS-TEN HILLS SCHOOL," and left with the City Register, Mr. F. A. Dolfeld, at his office in the City Hall on or before Wednesday, December 16, 1925.

EACH BID must be accompanied by a certified check of the bidder on some Clearing-house Bank in the amount of ONE THOUSAND DOLLARS (\$1000), made payable to the MAYOR AND CITY COUNCIL OF BALTIMORE.

The successful bidder will be required to give bond and comply with the City Charter respecting contracts.

The plans and specifications may be seen at the office of the Supervising Engineer, 518 Hearst Tower Building, upon deposit of \$10 on and after Thursday, December 3, 1925.

The Board reserves the right to reject any or all bids.

PUBLIC IMPROVEMENT COMMISSION.

H. G. PERRING,  
Supervising Engineer.

Approved:  
B. L. CROZIER,  
Chief Engineer.

Approved:  
HOWARD W. JACKSON,  
President Board of Awards.

Approved:  
JOS. W. PATTI, JR.,  
Assistant City Solicitor.

Bids close December 16, 1925.

### Improvement to School Area and Playground

Baltimore, Md., December 1, 1925. PROPOSALS will be received by the BOARD OF AWARDS OF BALTIMORE CITY for furnishing all permits, labor, tools and material necessary for grading, filling, surfacing, drainage, concrete work and fences for improving the area and playground at ROLAND PARK SCHOOL, Roland avenue north of Linwood, for the MAYOR AND CITY COUNCIL.

BIDS must be executed in duplicate and enclosed in sealed envelopes, addressed to the BOARD OF AWARDS OF BALTIMORE CITY, marked on the outside:

"PROPOSALS FOR IMPROVING AREA AND PLAYGROUND AT ROLAND PARK SCHOOL," and left with the City Register, Mr. F. A. Dolfeld, at his office in the City Hall on or before Wednesday, December 16, 1925.

EACH BID must be accompanied by a certified check of the bidder on some Clearing-house Bank in the amount of ONE THOUSAND DOLLARS (\$1000), made payable to the MAYOR AND CITY COUNCIL OF BALTIMORE.

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HOWARD W. JACKSON,  
President Board of Awards.

Approved:  
JOS. W. PATTI, JR.,  
Assistant City Solicitor.

Additional Proposals On Pages 140 to 143



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## ~How Adair is Helping to Build Southern Cities~

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### 1085 PEACHTREE APARTMENTS

In Atlanta, 1085 Peachtree is a fashionable place to live. Before ground was broken, or a brick laid, the Adair experts estimated its success. That estimate was exceeded from the beginning, to the profit of the borrowers and the added protection of the bondholders.



## Bringing The Money Of The Nation To The Upbuilding Of Southern Cities

THE Adair Realty and Trust Company is prepared to aid in the financing of buildings in Southern cities through loans of \$250,000 and upward by issues of first mortgage bonds on well-secured, income-producing properties. Investors all over the United States and in many foreign countries are ready to place their funds in such securities on the recommendation of this company.

Our experience of 60 years gives us a knowledge of conditions which should prove highly valuable to the owner who contemplates building. We can—and do frequently—suggest the type of building which will most rapidly become profitable in a

given location, and can also advise in the problems of renting and handling.

We will be glad to give consideration to plans, and to discuss details of financing with any owner who is working toward the erection of an office building, hotel, apartment-house, or the like, in any Southern city.

We have been able to render services to many architects, builders and contractors in suggesting methods of financing buildings for their clients, and would be glad to discuss this confidential service.

Address inquiries to the Mortgage Bond Department.

## Adair Realty & Trust Company

*The South's Oldest Mortgage Investment House*

Founded 1865, ATLANTA

MR-37

### Development of Quarry on Big Scale.

Houston, Texas.—The Micolithic Co. proposes to erect at Collado Station, in Culberson and Hudspeth counties, a 12-car-per-day crushing plant which will handle micaceous rock from quarry run to 1-16-inch mesh. The company also plans construction of a railroad five and a half miles long from the Southern Pacific at Collado to the properties. This road will be equipped with a locomotive and caboose, and is to be placed on an industrial railroad basis. In addition, the quarrying operations will require the installation of aerial trams.

At Houston the company will establish a mica-grinding mill of 200 tons daily capacity, with additional equipment to handle 100 tons of microline potash feldspar daily and a roasting and grinding mill with a capacity of 50 tons daily for the preparation of paint pigments.

Thomas G. McCabe, Houston, is handling all material and machinery purchases.

### \$175,000 Plant for St. Louis Concern.

St. Louis, Mo.—The St. Louis Trunk Hardware Manufacturing Co. will begin construction of a \$175,000 plant here January 1. It will be one-story high and contain 50,000 square feet of floor space, of steel and brick.

### 1000-Ton Fertilizer Plant at Lake Charles.

Lake Charles, La.—Kelly, Weber & Co., Ltd., southwest Louisiana wholesale grocery concern, is constructing a fertilizer plant here. The first unit will be 100 by 300 feet, with platform and docks 400 feet long, for the unloading of large steamships. Suitable machinery will be added to the plant to unload 1000 tons of fertilizer daily. Ten acres of land have been purchased from the Krause & Managan Lumber Co. on the banks of Lake Charles and Calcasieu River.

Construction is under the supervision of J. Y. Dempsey, contractor. The building will be frame on concrete foundations, with composition roof, and the decks will be placed on piling and heavy wood platforms. Modern machinery will be installed for manufacturing and handling fertilizers.

### \$4,000,000 Co-operative Apartment Proposed.

Miami, Fla.—Plans for construction of an ocean-front 11-story co-operative apartment house to cost approximately \$4,000,000 have been announced by the Mahlstedt-Steen Securities Corporation of New York. The apartments in the structure will consist of suites ranging from two rooms and bath to 10 rooms and four baths, the largest apartments occupying an entire floor and the selling price varying from \$15,000 to \$150,000.

### The Oscar T. Smith Company

Manufacturing Bank Stationers

407-9-11 E. SARATOGA STREET  
BALTIMORE, MD.

OSCAR T. SMITH  
President

### Bond, Stock and Security Issues engraved or printed as you want them

We have specialized on this work for more than 40 years, and can furnish highest credentials as to character and quality of work and absolute responsibility. Let us send samples and quote on your requirements.

**Security Bank Note Company**  
PHILADELPHIA NEW YORK  
223-5-7 Chestnut St. 20 Broad St.

"A Good Picture of Your Plant"

**R.J. Shutting**  
BIRD'S-EYE VIEW  
ARTIST

Chattanooga, Tennessee  
Satisfied Clients in Fifteen States



### DESIGNERS AND MANUFACTURERS OF LIGHTING EQUIPMENT

Leaded Art Glass and Stained Glass Windows for Churches and Residences

Repairing of Leaded Glass Windows

**BIEHL FIXTURE MFG. CO.**  
285-287 BANK ST. NORFOLK, VA.

### MILLION DOLLAR VIEW FREE!

Will erect two hundred room modern Tourist commercial hotel for purchaser. Price, One Million Dollars, or a lease for a period of ten years at a rental of seven per cent per annum. Large roof garden and stores included.

**YARROW CONSTRUCTION COMPANY**  
Suite 315, Legal Building  
ASHEVILLE, NORTH CAROLINA

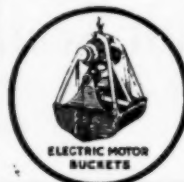
We Recommend and Apply Barrett Specification Roofs

### ODEND'HAL - MONKS CORP.

ROOFING AND SHEET METAL WORK

23rd Street, near Omohundro Ave.  
On N. & W. R. R.

NORFOLK, VA.



### Hayward Buckets

"Dig for all the World"  
**THE HAYWARD COMPANY**  
50-52 Church St., New York, N.Y.



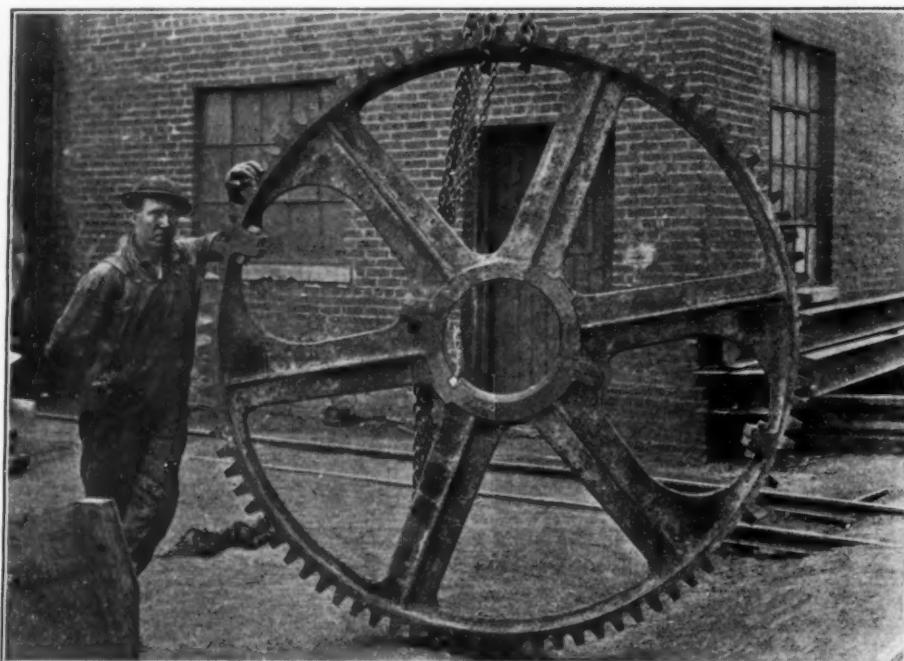
## THE SALE OF YOUR POSSESSIONS— AT WHAT PRICE?



All industrial or commercial property is in a constant state of being sold. Q Depreciation, if properly passed on to purchasers of the product or service, represents a sale of property—at what price? Q A fire results in a sale of property to insurance companies—at what price? Q Practically every use of appraisal service crystallizes its function into one of *fixing the price* at which property in one way or another is sold. Q Retaining an appraisal organization is one of the most serious transactions into which a concern can enter.

**THE AMERICAN APPRAISAL COMPANY**  
A NATIONAL ORGANIZATION  
Healey Bldg., ATLANTA

VALUE IS A MEASURE OF COMPARATIVE DESIRABILITY



Cast Steel Gear, Made In Our Shops, Weight 2500 Pounds

## STEEL CASTINGS

We are prepared to furnish semi-steel and converter steel castings up to 7,500 lbs. weight.

Send us your inquiries.

We are located on the main line of the Norfolk & Western Railroad.

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ENGINEERS, FOUNDERS & MACHINISTS

PULASKI VIRGINIA

Sales Office: 2422 Euclid Ave., CLEVELAND, OHIO



## PROPOSALS

BOND ISSUES

BUILDINGS

PAVING

GOOD ROADS



Bids close December 22, 1925.

**SEALED PROPOSALS** will be received by the U. S. Veterans' Bureau, Room 791 Arlington Building, Washington, D. C., until 11 A. M. December 22, 1925, and then and there publicly opened, for the construction complete of one Administration Building and one Clinic Building to be built at U. S. Veterans' Hospital No. 32, Mount Alto, Washington, D. C. This work will include reinforced concrete construction, hollow tile, brick work, cut stone work, marble work, mastic flooring, floor tile, iron work, slate and tin roofing, roof ventilators, metal lathing, plastering, carpentry, hardware, painting, glazing, plumbing, heating and electrical work, electric elevator, mortuary refrigerator and outside service connections. Separate Proposals will be received for the electric elevator, all as set forth on proposal sheet. Proposals will be considered only from individuals, firms or corporations possessing satisfactory financial and technical ability, equipment and organization to insure speedy completion of the contract, and in making awards the records of bidders for expedition and satisfactory performance on contracts of similar character and magnitude will be carefully considered. At the discretion of the Director, drawings and specifications may be obtained upon application to the Construction Division, Room 791 Arlington Building, Washington, D. C. Deposit with application of a check or postal money order for \$25, payable to the **TREASURER OF THE UNITED STATES**, is required as security for safe return of the drawings and specifications within ten days after date of opening proposals. **FRANK T. HINES**, Director. Nov. 20, 1925.

**RATE:** 35 cents per line per insertion.  
**PUBLICATION DAY:** Thursday.  
**FORMS CLOSE:** 4 P. M. Monday.  
**DAY LETTER:** When too late to send copy by mail to reach us by 4 P. M. Monday, forward by day letter.

**THE DAILY BULLETIN OF THE MANUFACTURERS RECORD:** Published every business day; gives information about the industrial, commercial and financial activities of the South and Southwest.

The Daily Bulletin can be used to advantage when copy cannot reach us in time for publication in the Manufacturers Record before bids are to be opened, or when daily publications are necessary to meet legal requirements.  
The same rate applies—35 cents per line per insertion.

Bids close January 18, 1926.

Sealed proposals will be received by the undersigned at the Pacific Branch National Home for D. V. S., Soldiers' Home, Los Angeles County, California, until 1 o'clock P. M. January 18, 1926, and then opened in the presence of the bidders in the office of the Treasurer, Pacific Branch, N.H.D.V.S., for (a) furnishing the labor and material for the complete construction (except mechanical equipment and elevators) of a hospital building at the Pacific Branch, N.H.D.V.S., at Sawtelle, California; (b) furnishing the labor and material for the mechanical equipment (except elevators) for the above described building; (c) furnishing the labor and material for the elevators for the above described building; (d) furnishing labor and materials for construction complete of the above described building.

Drawings and specifications are on file and may be consulted by prospective bidders at the following places: Headquarters Office, National Home for D.V.S., Dayton, Ohio; Office of the Supervising Architect, Treasury Building, Washington, D. C.; Office of the Quartermaster, Pacific Branch, National Home for D. V. S., Soldiers' Home, California; Minneapolis Builders' Exchange, 609 Second avenue, South, Minneapolis, Minn.; Portland Chamber of Commerce, Portland, Oregon; Seattle Chamber of Commerce, Seattle, Washington; Chamber of Commerce and Commercial Club, Salt Lake City, Utah; San Francisco Chamber of Commerce, Merchants' Exchange Building, 465 California street, San Francisco, California; Financial Secretary Illinois Society of Architects, 160 North La Salle street, Chicago, Ill.; Chamber of Commerce, Los Angeles, California; Chamber of Commerce, San Diego, California, and Chamber of Commerce, Denver, Colorado. Instructions to bidders and blank proposals can be had upon application to Colonel C. W. Wadsworth, General Treasurer National Military Home, Dayton, Ohio; Supervising Architect, Treasury Department, Washington, D. C., and Governor Pacific Branch, N.H.D.V.S., Soldiers' Home, California. (Sgd.) C. W. Wadsworth, General Treasurer.

Bids close January 7, 1926.

**OFFICE OF EXECUTIVE OFFICER, ARLINGTON MEMORIAL BRIDGE COMMISSION**, Washington, D. C. Sealed proposals will be received at this office until 11 A. M. January 7, 1926, and then opened, in Room 1613, Navy Building, for constructing piers and abutments of the Arlington Memorial Bridge across the Potomac River at Washington, D. C. Further information upon application.



Bids close January 2, 1926.

U. S. ENGINEER OFFICE, Vicksburg, Miss. Proposals will be received here until noon January 2, 1926, for furnishing and delivering one steel maneuver boat hull. Information on application.

Bids close December 10, 1925.

U. S. ENGINEER OFFICE, Florence, Ala. Sealed proposals will be received here until 11 A. M. December 10, 1925, and then opened, for the sale of material and equipment of three gantry cranes at Wilson Dam. Further information on application.

Bids close December 16, 1925.

U. S. ENGINEER OFFICE, Florence, Ala. Sealed proposals will be received here until 11 A. M. December 16, 1925, and then opened, for furnishing materials and laying the floor and wainscot in the power house of Wilson Dam, Tennessee River. Further information on application.

Bids close December 28, 1925.

TREASURY DEPARTMENT, office of the Supervising Architect, Washington, D. C., November 30, 1925. SEALED PROPOSALS will be opened in this office at 3 P. M. December 28, 1925, for remodeling at the U. S. Marine Hospital, Savannah, Ga. Drawings and specifications may be obtained from the Medical Officer in Charge of the U. S. Marine Hospital, Savannah, Ga., or at this office, in the discretion of the Supervising Architect, Jas. A. Wetmore, Acting Supervising Architect.

Bids close December 19, 1925.

### \$20,000 Highway Improvement Bonds

Madisonville, Tenn.

In obedience to a resolution passed by the County Court of Monroe County, Tennessee, at adjourned session on Monday, the 2nd day of November, 1925, we will offer for sale and sell to the highest and best bidder \$20,000 Highway Improvement Bonds for the purpose of co-operating with the State Department of Highways and Public Works in the improvement of State Road No. 64 from McMinn County line to Madisonville, Tennessee, a distance of about 7 miles. Said bonds will be sold on December 19, 1925, for cash, but will not be sold for less than par and accrued interest at 6%.

C. A. KENNEDY, County Judge.

C. J. SPURLING, County Court Clerk.

Bids close December 23, 1925.

### \$125,500 5% Improvement Bonds ISSUE OF 1925, SECOND SERIES.

Live Oak, Fla.

Notice is hereby given that the undersigned, Bond Trustees of the city of Live Oak, Suwannee County, Florida, will receive sealed bids after thirty days from November 20, 1925, and prior to December 23, 1925, at 10 o'clock A. M., at the City Hall in the city of Live Oak, Florida, for 251 Improvement Bonds of the city of Live Oak, Florida, Issue of 1925, Second Series, in the denomination of \$500 each, dated November 1, 1925, and maturing thirty years after date and drawing interest at the rate of five per cent per annum from date and payable semi-annually on January 1 and July 1, respectively. Said bids shall be opened at 10 o'clock A. M. December 23, 1925, at the City Hall, in the city of Live Oak, Florida. Bids will be received for all or any portion of said bonds, and each bid must be accompanied by a cashier's check or a certified check in an amount equal to ten per cent of the amount of such bid. No bid will be received or considered in an amount under ninety-five per cent of the face value of any bond or bonds. The Bond Trustees reserve the right to reject any or all bids.

E. S. CONNER,  
J. W. WEST,  
W. C. WHITE, Trustees.

Bids close December 18, 1925.

### Bridge Construction

Bradenton, Fla.

Sealed proposals on blank forms furnished by the Board of County Commissioners of Manatee County, Florida, and addressed to it will be received until 10 o'clock A. M. December 18, A. D. 1925, at the office of said Board for furnishing all materials, equipment and labor, and performing the

work provided for by the plans, specifications, cross sections, profiles, etc., in connection with the following project to be constructed with a part of the proceeds of a recent \$1,500,000 bond issue, to wit:

The Long Boat Inlet Bridge between Long Boat and Anna Maria Keys in Manatee County, Florida.

Length, 675 feet.

Type of bridge, pile trestle.

Contractors offering bids on said work must, if required, submit satisfactory proof of ability and experience with the class of work bid on and contract will be awarded to the lowest responsible bidder, save that the Board reserves the right to reject any or all bids.

The successful bidder will be required to give bond equal to fifty per cent (50%) of his bid, such bond to be executed by a surety company licensed to do business in the State of Florida, said bond to be given for full and faithful performance of all of the conditions required under the contract and to be subject to the approval of the Board, said bond to be paid for by the Contractor. A certified check in an amount equal to five per cent (5%) of the amount bid, made payable to Robert H. Roesch, Clerk, must accompany each proposal as evidence of good faith on part of the bidder and as a guarantee for properly entering into a contract and bond for the carrying out of the work.

Plans and specifications are on file and may be seen at the office of the Clerk of Manatee County and the office of the County Highway Engineer. Copies of specifications may be secured upon payment of two dollars (\$2). Copies of complete plans and specifications may be secured upon payment of five dollars (\$5). These payments will be refunded to unsuccessful bidders upon the return of the plans and specifications in good condition.

BOARD OF COUNTY COMMISSIONERS  
OF MANATEE COUNTY, FLORIDA.

ROBERT H. ROESCH, Clerk.

By H. C. STANCLIFF, Deputy Clerk.

GEORGE A. RALPH,  
County Highway Engineer.

Bids close December 11, 1925.

### Tennessee Highway Letting

Nashville, Tenn.

SEALED BIDS will be received by the State of Tennessee, Department of Highways and Public Works, at their offices in Nashville, Tennessee, until Friday, December 11, 1925, and opened publicly at 10 o'clock A. M. for the construction of:

Project 31-A, Tipton County—0.86 miles plain cement concrete pavement, with alternate bituminous concrete on cement concrete base.

Project 31-B, Tipton County—7.37 miles plain cement concrete pavement, with alternate bituminous concrete on cement concrete base.

Project 36-B, Shelby County—2.14 miles grading and drainage. Three bridges over 20 feet of span.

Project 40-A, Giles County—7.17 miles grading, drainage, plain cement concrete pavement, with alternates bituminous concrete on cement concrete base, bituminous macadam on macadam base and rock asphalt on macadam base, with two bridges over 20 feet of span.

Project 40-B, Maury County—12.56 miles grading, drainage and plain cement concrete pavement, with alternates bituminous concrete on cement concrete base, bituminous macadam on macadam base, and rock asphalt on macadam base.

Project 40-C, Giles County—9.19 miles grading, drainage and plain cement concrete pavement, with alternate bituminous concrete surface on cement concrete base, and two bridges over 20 feet of span.

Project 51-D, Madison County—7.89 miles grading and drainage.

Project 55-A, Anderson County—0.45 miles grading and drainage and four bridges over 20 feet of span.

Project 58-A, Bradley County—10.85 miles grading and drainage.

Project 192-B, Polk County—Fabricated structural steel and reinforced concrete bridge over Conasauga River.

Project 301-A, Polk County—1.49 miles grading and drainage.

Project 302-B, Dyer County—Grade separation structure over Illinois Central Railroad.

Project 308-A, Montgomery County—3.68 miles grading and drainage and three bridges over 20 feet of span.

Project 309-A, Sullivan County—4.89 miles grading and drainage and two bridges over 20 feet of span.

Project 310-A, Unicoi County—6.33 miles grading and drainage.

Project 313-A, Loudon County—4.20 miles grading and drainage.

Project 315-A, Perry County, 8.00 miles grading and drainage.

Bidder's bond or certified check in amount of not less than five per cent total bid required as proposal guarantee. Plans for structures furnished at cost. Deposit \$1 required for each proposal. For further information communicate with Department offices at Nashville, Tennessee. C. N. BASS, Assistant Commissioner.

Bids close December 21, 1925.

### Street Improvements

Sealed proposals addressed to City of Bradenton, care R. K. Van Camp, Commissioner Public Works, Bradenton, Florida, and marked "Sealed Proposals," will be received until 1.30 P. M. o'clock December 21, 1925. Approximate quantities:

33,000 Cu. Yds. Excavation.

46,000 Lin. Ft. Curb.

65,000 Sq. Yds. Paving.

The right is reserved to reject any and all bids.

CITY OF BRADENTON, FLORIDA.

R. K. VAN CAMP,

Commissioner Public Works.

L. L. HINE, City Clerk.

Bids close December 10, 1925.

### Street Paving

Eustis, Fla.

Sealed proposals on blank forms furnished by the city and addressed to the "Mayor and Council, Eustis, Florida," will be received until 2 P. M. December 10, 1925, at Eustis, Florida, for furnishing all material, equipment and labor for the following work:

Approximately 120,000 sq. yds. of Street Paving, with the necessary drainage, curb, gutter and other items incidental thereto.

Each bid must be accompanied by a certified check, made payable to the City Clerk, for not less than ten thousand (\$10,000) dollars.

Plans and specifications can be seen at the office of the City Clerk and at the offices of the Engineers, and specifications may be obtained from the Engineers upon the payment of two dollars. Full set of plans will be furnished by the Engineers upon the payment of ten dollars (\$10), half of which will be refunded upon the return of the plans in good condition within ten days after the award of the work.

The right is reserved to reject any or all bids.

HENRY W. BISHOP, Mayor.

GEO. J. DYKES, Clerk.

H. S. JAUDON ENGINEERING CO.,  
Engineers,  
Elberton, Ga.; Eustis, Fla.

Bids close December 10, 1925.

### Street Improvements

Sealed proposals will be received by the City of Webster, Florida, at the City Hall, for furnishing all material and labor to construct street improvements for the City of Webster until 8 o'clock P. M. December 10, 1925, at which time they will be opened and read publicly.

The principal items of work are approximately as follows:

34,704 Square Yards Paving.

25,872 Lineal Feet Flush Curb.

6,224 Lineal Feet Curb and Gutter.

4,468 Cubic Yards Excavation.

Each bid for construction must be accompanied by a certified check on a bank satisfactory to the city officials, or a bidder's bond acceptable to the city officials for five (5%) per cent of the amount of bid, drawn to the order of the City of Webster, Florida.

All bids will be compared on the basis of the Engineer's estimate of the amount of work to be done.

Copies of specifications may be obtained from the Engineers or the City Clerk upon receipt of deposit of \$5.00, which will be returned to bona fide bidders.

Plans may be seen at the office of the Engineers or at the office of the City Clerk, or may be secured from the Engineers upon payment of \$10.

The right is reserved to reject any or all bids, and the contract may be awarded as a whole or in part to any one or more bidders, as considered to be the best interest of the city.

CITY OF WEBSTER, FLORIDA.

F. A. TOMPKINS, Mayor.

J. S. COLLINS, President Council.

J. W. BRANCH, City Clerk.

J. B. MCCRARY ENGINEERING  
CORPORATION, Engineers,  
Atlanta, Georgia.

Bids close December 19, 1925.

### Dredging, Levee Construction, Etc. Bay City, Texas.

Sealed proposals will be received by Fred S. Robbins, Chairman, Board of Commissioners, December 19, 1925, at Bay City, Texas, for 245,000 yards dredging and 800,000 yards levee construction and 20 drainage structures of pipe and concrete. Five (5%) per cent check to accompany proposal. Proposal blanks and specifications at office of E. N. Gustafson, Bay City, Matagorda County Conservation and Reclamation District.

FRED S. ROBBINS, Chairman.

Bids close December 8, 1925.

### Dredging and Jetty Construction October 20, 1925.

Sealed proposals for dredging and jetty construction at St. Lucie Inlet will be received by the Board of Commissioners of the St. Lucie Inlet District at the office of the Board, Stuart, Florida, until 10 o'clock A. M. December 8, 1925.

Specifications and plans can be obtained from the Engineer and can be seen at the office of the Secretary of the Board of Commissioners of the St. Lucie Inlet District, Stuart, Florida.

BOARD OF COMMISSIONERS ST. LUCIE INLET DISTRICT.

C. VAN ANGLE, Secretary,  
Stuart, Florida.

J. M. BRAXTON, Chief Engineer,  
319 St. James Building, Jacksonville, Fla.

Bids close January 6, 1926.

### Gravity Drainage System

Bids for the construction of a complete Gravity Drainage System of approximately one million cubic yards of excavation, in accordance with plans and specifications prepared by J. A. Lovell, C. E. Thibodaux, La., on file with the undersigned, will be received by the Commissioners of the Lafourche-Terrebonne Drainage District until 11 A. M. of January 6, 1926, and on the same date and at the same hour the same will be publicly opened and read at a meeting of the said Board of Commissioners at the Court House in the Town of Thibodaux. All bids must be accompanied by a certified check of five per cent of the amount of bid.

A charge of five dollars will be made for a set of plans and specifications.

For information, plans and specifications, etc., address

M. J. POLMER, Secretary,  
Schriever, La.

Bids close December 15, 1925.

### Staunton Water Supply

#### NORTH RIVER EXTENSION.

Sealed proposals will be received by the City Manager, Staunton, Virginia, up to 12 o'clock noon, on Tuesday, December 15, 1925, for the construction of Contract No. 5 of the Staunton Water Works.

#### Approximate Quantities:

Unclassified Excavation, 850 cubic yards.  
Laying 20-inch c. i. pipe in trench, 1700 linear feet.

Laying 20-inch c. i. pipe in tunnel, 5700 linear feet.

Cast iron pipe and specials to be furnished by the city.

Alternate bids will be received on furnishing and laying the above quantities of 20-inch lock joint concrete pipe.

Each proposal, to receive consideration, must be accompanied by certified check for sum of \$2000.

Bond is required for the full amount of the contract.

Plans and specifications are on file at the offices of the City Manager, Staunton, Virginia; Fuller & McClintock, 170 Broadway, New York, N. Y., and Lee H. Williamson, National Bank Building, Charlottesville, Virginia. Plans and specifications may be obtained from the City Manager, Staunton, Virginia, upon deposit of \$5 for a single set.

Inspection trips to site of proposed work will be made on December 11 and 14, leaving the Engineer's Office, City Hall, Staunton, at 8 A. M., accompanied by the Engineer.

The city reserves the right to reject any or all bids or to accept any bid which it deems to be to the best interest of the city to accept. Bids not conforming to the requirements of the specifications will be declared informal and will not be considered.

W. F. DAY, City Manager.

Bids close December 8, 1925.

### Sanitary and Storm Water Sewers

#### West Palm Beach, Fla.

Sealed proposals will be received by the City Commission of the city of West Palm Beach, Florida, up to 12 o'clock noon on December 8, 1925, for furnishing all labor and material for the construction of sanitary and storm water sewers in the North Borough, Sewer District 9, in accordance with the plans and specifications for Contract 9A on file in the office of the City Manager of said city.

Each proposal must be accompanied with a certified or cashier's check in the amount of two and one-half per cent (2½%) of the amount of the proposal, made payable to the city of West Palm Beach, Florida, as a guarantee that within ten days from notice of awarding of contract the successful bidder will enter into a written contract with the city and furnish acceptable bond in the amount of one hundred (100) per cent of the amount of the proposal conditioned upon the carrying out of said contract. Checks of unsuccessful bidders will be returned. Each proposal must be sealed and addressed to the City Manager of the city of West Palm Beach, Florida, and shall be in the office of the City Manager not later than 12 o'clock noon on the eighth day of December, 1925.

Plans, specifications and blank proposals may be obtained at the office of the City Manager or at the offices of Fuller & McClintock, 170 Broadway, New York City, and Summit-Cherry Bldg., Toledo, Ohio, upon the payment of a deposit of Twenty Dollars (\$20), which will be refunded upon the return of the plans and specifications in good condition within thirty (30) days after taking of bids.

The amount of work will be approximately as set forth in the following description of Contract 9A:

#### PRINCIPAL ITEMS.

#### SANITARY SEWERS WITH PLASTIC JOINTS.

169,700 linear ft. 8-in. vitrified pipe sewer  
8,200 linear ft. 10-in. vitrified pipe sewer  
2,200 linear ft. 12-in. vitrified pipe sewer  
10,100 linear ft. 15-in. vitrified pipe sewer  
1,700 linear ft. 18-in. vitrified pipe sewer  
2,200 linear ft. 21-in. vitrified pipe sewer

#### STORM WATER SEWERS WITH CEMENT JOINTS.

800 linear ft. 12-in. vitrified pipe sewer  
37,900 linear ft. 15-in. vitrified pipe sewer  
15,100 linear ft. 18-in. vitrified pipe sewer  
11,500 linear ft. 24-in. vitrified pipe sewer  
6,000 linear ft. 30-in. vitrified pipe sewer  
4,300 linear ft. 36-in. vitrified pipe sewer  
Alternate bids will be received on the 30-inch and 36-inch storm water sewers for segmental tile block and reinforced concrete pipe.

#### STORM WATER SEWERS OF SEGMENTAL TILE BLOCK OR REINFORCED CONCRETE PIPE.

4,100 linear feet 42-inch sewer  
4,800 linear feet 48-inch sewer  
4,900 linear feet 54-inch sewer  
4,000 linear feet 60-inch sewer  
5500 feet of depth of manholes.  
93,000 linear feet 6-inch vitrified pipe house connections.

The City Commission reserves the right to reject any or all proposals and to award the contract in the best interests of the city of West Palm Beach, Florida.

(Signed) C. A. BINGHAM,  
City Manager.

(Signed) H. J. DAUGHERTY, City Clerk.  
T. B. HENRY, City Engineer.

Bids close December 14, 1925.

### Water Mains and Appurtenances

#### Towson, Md., Nov. 19, 1925.

Sealed proposals addressed to the County Commissioners of Baltimore County and endorsed Bids for the Laying of Water Mains and Appurtenances Thereto in "Lansdowne," will be received at their office in the Court-house, Towson, Maryland, until 11 A. M., Eastern Standard time, on December 14 next, when they will be publicly opened and read.

#### PROPOSALS No. 5-W.

#### APPROXIMATE QUANTITIES.

21,836 Lin. Ft. Earth Excavation and Refill for 6-inch Pipe.

1600 Lin. Ft. Class "A" Rock Excavation and Earth Refill for 6-inch Pipe.

500 Lin. Ft. Class "B" Rock Excavation and Earth Refill for 6-inch Pipe.

500 Lin. Ft. Class "C" Rock Excavation and Earth Refill for 6-inch Pipe.  
5450 Lin. Ft. Earth Excavation and Refill for 8-inch Pipe.

300 Lin. Ft. Class "A" Rock Excavation and Earth Refill for 8-inch Pipe.

100 Lin. Ft. Class "B" Rock Excavation and Earth Refill for 8-inch Pipe.

100 Lin. Ft. Class "C" Rock Excavation and Earth Refill for 8-inch Pipe.

2173 Lin. Ft. Earth Excavation and Refill for 10-inch Pipe.

50 Lin. Ft. Class "A" Rock Excavation and Earth Refill for 10-inch Pipe.

50 Lin. Ft. Class "B" Rock Excavation and Earth Refill for 10-inch Pipe.

50 Lin. Ft. Class "C" Rock Excavation and Earth Refill for 10-inch Pipe.

5135 Lin. Ft. Earth Excavation and Refill for 12-inch Pipe.

360 Lin. Ft. Class "A" Rock Excavation and Earth Refill for 12-inch Pipe.

100 Lin. Ft. Class "B" Rock Excavation and Earth Refill for 12-inch Pipe.

100 Lin. Ft. Class "C" Rock Excavation and Earth Refill for 12-inch Pipe.

8608 Lin. Ft. Earth Excavation and Refill for 16-inch Pipe.

440 Lin. Ft. Class "A" Rock Excavation and Earth Refill for 16-inch Pipe.

150 Lin. Ft. Class "B" Rock Excavation and Earth Refill for 16-inch Pipe.

150 Lin. Ft. Class "C" Rock Excavation and Earth Refill for 16-inch Pipe.

50 Cu. Yds. Miscellaneous and Test Pit Earth Excavation and Refill.

700 Lin. Ft. Miscellaneous Cinder Repaving at Road Shoulders.

900 Lin. Ft. Miscellaneous Gravel Repaving at Road Shoulders.

350 Lin. Ft. Miscellaneous Concrete Repaving of Roadway.

80 Lin. Ft. Earth Excavation and Refill for 16-inch Pipe under B. & O. R. R. crossing.

#### PROPOSAL No. 6-W.

#### APPROXIMATE QUANTITIES.

24,436 Lin. Ft. Laying 6-inch Mains, Valves and Fittings, Lead Joints.

Alternate Bids, Leadite Joints.

5950 Lin. Ft. Laying 8-inch Mains, Valves and Fittings, Lead Joints.

Alternate Bids, Leadite Joints.

2323 Lin. Ft. Laying 10-inch Mains, Valves and Fittings, Lead Joints.

Alternate Bids, Leadite Joints.

5695 Lin. Ft. Laying 12-inch Mains, Valves and Fittings, Lead Joints.

Alternate Bids, Leadite Joints.

9348 Lin. Ft. Laying 16-inch Mains, Valves and Fittings, Lead Joints.

Alternate Bids, Leadite Joints.

80 Lin. Ft. Laying 16-inch Mains, Valves and Fittings, Lead Joints, under B. & O. R. R. crossing.

31 Placing Fire Hydrants.

Each bid, excavating and laying must be separately totaled and each accompanied by a certified check for Two Thousand (\$2000) Dollars, payable to the County Commissioners, as a guarantee that the successful bidder will sign the contract.

A bond for an amount equal to the amount of the bid of a surety company satisfactory to the Commissioners will be required of the successful bidder.

A copy of the Specifications, Plans and Drawings will be furnished prospective bidders on receipt of a certified check for Twenty-five (\$25) Dollars, refund of which will only be made upon receipt of a bona fide bid and return of the Specifications and Drawings to the office of the Chief Engineer of the Baltimore County Metropolitan District within ten (10) days after opening of the bids and award of the contract. No Specifications or Drawings will be issued after Thursday, December 10, 1925. Specifications and Drawings can be seen at the office of the Chief Engineer of the Baltimore County Metropolitan District, Towson, Maryland, after November 12, 1925.

Consideration will be given bidder's experience (must be stated in or attached to the bid), financial standing and reputation for having done successful work of the kind specified without controversy or litigation, and the Commissioners reserve the right to reject any or all proposals or bids, or parts of bids, or to accept any bids, or parts of bids, or to separate bids for the excavation and refill from laying of the pipe and setting Hydrants, or to waive technicalities, as they may deem best for the interests of the county.

By order of the Board.

JOHN R. HAUT, Chief Clerk.  
A. E. WALDEN, Chief Engineer.



Bids close December 10, 1925.

**Water-Supply System**

Jacksonville Beach, Fla.

Sealed proposals will be received by the City Commission of the City of Jacksonville Beach, Florida, until 3 o'clock P. M. on Thursday, December 10, 1925, for the furnishing of all materials and construction of a complete water supply system. The work will be let as a whole or in sections, as follows:

Section 1—  
Pipe lines, valves and hydrants.  
1,500 ft. 12-in. pipe, 700 ft. 10-in. pipe.  
26,000 ft. 8-in. pipe, 11,000 ft. 6-in. pipe.  
6,000 ft. 2-in. pipe, 59 hydrants and 86 valves.

Section 2—  
100,000-gallon steel water tower.

Section 3—  
75,000-gallon concrete receiving basin.

Section 4—  
Brick Pumping Station building.

Section 5—  
Machinery and equipment.  
Three centrifugal pumps, electric and gasoline drive.

Section 6—  
Pumping Station piping.

Section 7—  
Foundations for machinery and tower.

All work shall be in accordance with the Plans and Specifications therefor on file in the office of the City Commission and of the George B. Hills Company, Engineers, Jacksonville, Florida. Copy of plans and specifications may be obtained from the said Engineers upon deposit of \$25, which will be returned to bona fide bidders upon return of plans and specifications in good order on the day of letting.

A certified check on a Jacksonville bank, or on some National bank, must accompany each bid as a guarantee that the bidder will, if awarded the contract, promptly enter into agreement to perform the work and furnish the required bond.

The check shall be of sufficient amount to cover each section bid upon in the following amounts:

Section 1, \$1500.

Section 2, 200.

Section 3, 200.

Section 4, 200.

Section 5, 200.

Section 6, 200.

Section 7, 50.

The printed instructions to bidders and General Stipulations included in the Specifications for the work must be strictly complied with, and said specifications shall be considered as part of this advertisement.

Each bid shall be addressed to the "City Commission," and delivered by mail or otherwise at the office of the Secretary, at Jacksonville Beach, Florida.

The Commission reserves the right to reject any or all bids, or to award contract for any part of any bid.

NEAL FINKELSTEIN, Chairman.

Attest:  
C. U. SMITH, Secretary.

Bids close December 15, 1925.

**Concrete Apron Wharf**

Mobile, Ala.

Sealed proposals will be received by the Alabama State Docks Commission at their office, second floor, State Office Building, Mobile, Alabama, until 10 A. M. December 15, 1925, and then publicly opened, for furnishing and constructing a Concrete Apron Wharf for Pier No. 2. About 19,700 cubic yards of concrete, 3400 concrete piles, 75,000 square feet creosoted sheet piling and other materials are included.

A deposit of Fifty Thousand (\$50,000) Dollars in cash or certified check, or in lieu thereof a bidder's bond for like amount with an approved company, is required with each proposal.

Specifications, proposal forms and plans are on file in the office of the Purchasing Agent, second floor, State Office Building, Mobile, Alabama. Complete sets will be furnished to prospective bidders on deposit of \$50, which will be refunded to depositors who submit formal proposals, or return sets in good condition, within thirty days of opening of bids.

A bond to the amount of 50 per cent of the sum bid is required with notarial contract.

The right is reserved to reject any or all bids and to waive informalities.

ALABAMA STATE DOCKS COMMISSION.

WILLIAM L. SIBERT, Chairman.

Bids close December 9, 1925.

**Furnishing and Erecting Elevating and Conveying Machinery for Additions to Montebello Filters**

Baltimore, Md.

Sealed bids, in duplicate, endorsed "Proposals for Furnishing and Erecting Elevating and Conveying Machinery for Additions to Montebello Filters," addressed to the Board of Awards of Baltimore City, will be received at the office of the City Register, City Hall, Baltimore, Md., until 11 A. M. Wednesday, December 9, 1925, at which time they will be publicly opened and read.

Specifications and proposal forms may be obtained at the office of the Water Engineer, Room 205, City Hall, Baltimore, Md., on and after November 28, 1925. A charge of \$25 will be made for each set of specifications and drawings. This amount will be refunded upon their return in good condition, either by the submission of a bid or to Room 205, City Hall, not later than the day of opening bids.

All bids must be accompanied by a certified check of the bidder on a clearing-house bank for the sum of One Thousand (\$1000) Dollars, drawn to the order of the Mayor and City Council of Baltimore, and the successful bidder will be required to give satisfactory bond for the faithful performance of the agreement equal in amount to the value of the contract.

The Board of Awards reserves the right to reject any or all bids.

Approved:

V. BERNARD SIEMS,  
Water Engineer.  
B. L. CROZIER,  
Chief Engineer.

**Additional Proposals On Page 136****CLASSIFIED OPPORTUNITIES****MINERAL AND TIMBER LANDS, WATER POWER, MISCELLANEOUS PROPERTIES**

FOR SALE—Attention at once to get this bargain: 3500 acres, 200 acres cleared, 1000 acres old fields, 2300 acres in timber, been cut to 10 inches; 3 houses and 2 barns; good water, A No. 1 stock farm. Much land underlaid with limestone and plenty marl rock. Price \$6 per acre, half cash. Address

FARMER,  
P. O. Box 35, Chadbourn, N. C.

FOR SALE—3800 ACRES Coal, Gas and Oil Land, in Martin County, Kentucky, on N. & W. R. R. Cheap to settle an estate.  
L. DEMPSEY,  
Inez, Ky.

**NORTHWEST GEORGIA.**

The scene of the next great industrial development in Georgia. Electric power available. Large power plants under construction.

For industrial sites; pine and hardwood timber; brick shales; clays, large or small water powers; farms in a prosperous section. Write, with detail, as to your requirements.

C. E. VANCE, Calhoun, Ga.

**ROCK QUARRY**

FOR SALE—Large Rock Quarry, splendid grade of rock; supply unlimited. On C. & W. C. Railroad. Will make price right. E. M. WOLFF, Laurens, S. C.

**RATES AND CONDITIONS**

Rate 30 cents per line per insertion. Minimum space accepted, four lines. In estimating the cost allow seven words of ordinary length to a line. When the advertisement contains a number of long words proper allowance should be made. Terms: Invariably cash with order; check, postoffice or express order or stamps accepted. No display type used. Questionable or undesirable advertisements will not be accepted. The assistance of our readers in excluding undesirable advertisements is requested. We reserve the right to refuse any advertisement. No patent medicine, oil or mining stock advertisement accepted. Rate for special contracts covering space used as desired within one year as follows: 100 lines, 28c per line; 300 lines, 26c per line; 500 lines or more, 25c per line.

**MINERAL AND TIMBER LANDS, WATER POWER, MISCELLANEOUS PROPERTIES**

FOR SALE—2000 acre lime deposit which analyzes 97 per cent carbonate lime, located in south Georgia. Tracts of pine and hardwood timber ranging from 5 million to 300 million feet, located in Georgia, Florida, South Carolina, North Carolina, Alabama.  
I. S. TANT & CO., Augusta, Ga.

COAL AND TIMBER LAND  
FOR SALE OR EXCHANGE—400 acres, virgin forest, good merchantable oak, hickory, poplar, walnut, chestnut; 56-inch semi-anthracite coal under entire property; eleven miles east of Livingston, near State highway; price \$30,000, or exchange for town or city property in Tennessee, Georgia or Florida or general line of merchandise.  
E. C. KNIGHT, Livingston, Tenn.

**MINERAL AND TIMBER LANDS, WATER POWER, MISCELLANEOUS PROPERTIES****TIMBER AND TIMBER LAND**

FOR SALE—Timber lands, cut-over lands, especially suitable for colonizing, ranching or subdivision, located Alabama and Florida.  
H. H. WEFEL, JR., Mobile, Alabama.

TIMBERLANDS, FOREST PRODUCTS, etc. Write us stating your requirements. NORTHERN REALTIES CO., INC., New Birks Building, Montreal, Canada.

VIRGINIA HARDWOOD TIMBER FOR SALE. More than one million feet on tract four miles from railroad. Mostly white oak. Write J. R. WINGFIELD, R. No. 2, Charlottesville, Va.

**FARM, FRUIT AND TRUCK LANDS****ALABAMA**

WONDERFUL OPPORTUNITIES, with unlimited possibilities, for investment on the Gulf Coast at Mobile. The land that steals your heart away. We have factory sites, textile mill, central business property, farms, orange and pecan groves, timber tracts, cutover land, water-front property, homes and desirable building lots at very attractive prices and easy terms. Write us for information and literature. GULF COAST INVESTMENT COMPANY, INC., REALTORS, 32-34 N. Royal St., Battle House Bldg., Mobile, Ala.

**FLORIDA**

WE ARE REALTORS.  
Service and Reliability Our Slogan.  
How can we help you in Florida?  
GOODWIN & BAKER,  
Fort Pierce, Florida.

## FARM, FRUIT AND TRUCK LANDS

## FLORIDA

MELBOURNE, FLORIDA  
Wants Apartment Houses.  
Write for full information. All kinds of property for sale.  
FLORIDA REALTY CO.,  
John W. Lepper, Pres. Box 204.

## SARASOTA, FLORIDA.

Attractive offerings in Acreage Tracts and Lots in Sarasota and Suburbs.  
For further information address  
DEAN-TYLER COMPANY, INC.,  
REALTORS.

## WEST FLORIDA

On Beautiful Santa Rosa Sound  
About 300 acres in one tract; virgin pine timber; no swamp land; 1/4 mile beach front; about 20 miles from Pensacola; \$350 per acre. Terms, one-third cash, balance in one and two years, 6%. Address

J. M. MILLER

Mary Esther, Fla., or No. 6524, care of Manufacturers Record, Baltimore, Md.

## FORT PIERCE, FLORIDA.

Tract of offering of subdivision acreage and lots in Fort Pierce and suburbs, also large acreage tracts from sections to four hundred thousand acres. Ocean and river frontage.

J. G. COATS, Realtor,  
Fort Pierce, Florida.

FLORIDA INVESTMENTS. — Acreage tracts, timber tracts, subdivisions and hotel sites, any section in Florida. Some bargains with quick turnovers and large profits on small investments assured; 25 years' experience. ASK ANYBODY. N. D. SUTTLES & COMPANY, Jacksonville and West Palm Beach, Fla.

## CARR &amp; CARR, INC.,

Realtors,

WEST PALM BEACH, PALM BEACH,  
LAKE WORTH.

References—Any bank or trust company in Palm Beach County.

TWENTY ACRES AND  
PLENTY

Free book tells truth about Florida land; monthly payments \$1 an acre. Orange groves, planted, cared for, 10 per cent above cost.

SYLVESTER E. WILSON,  
Dept. X, Orlando, Fla.

YOU CAN ALWAYS RELY ON A REALTOR  
LOVELAND & TANNER,  
REALTORS,  
PALATKA, FLORIDA.

Specializing in acreage, investments and industrial locations in Putnam County, Florida. Preferential freight rates, 3 railroads and St. John's River steamers to New York. Ask for booklet.

WE ARE SPECIALISTS in Florida real estate. Write us in regard to the purchase of acreage, lots, subdivision sites or investments in real estate in any of its branches. Our reference is the Miami Bank & Trust Co., Miami, Florida, who act as trustee for the various properties purchased by us for our clients, the present valuation of which exceeds several million dollars.

FLORIDA LAND SALES CORPORATION,  
524 Seybold Building,  
Miami, Florida.

NEW SMYRNA, FLORIDA  
"THE HARBOR CITY"

Agricultural lands adjacent to water transportation.

Business properties at attractive prices. Ocean subdivisions and acreage.

Residential property in fast-growing city. Port bonding district, with \$1,500,000 authorized and engineering plans now developing.

Sketch map showing harbor project and other information cheerfully furnished by  
EARL WHEELER  
REAL ESTATE, NEW SMYRNA, FLORIDA

## FARM, FRUIT AND TRUCK LANDS

## FLORIDA

S. J. OVERSTREET, Realtor,  
Walker Apartment Building,  
Titusville, Florida.  
City Property. Farms. Groves. Acreage.  
Nothing but Real Estate.

FLORIDA INVESTMENTS  
MANATEE COUNTY.

The county that stands 7th in production of fruit and vegetables in the U. S. A solid foundation back of your investments—Farm Lands—Business Properties—Lots or Acreage for Subdivisions.

Full information on request—we can buy for you and we can resell for profit.

References: Bradenton Bank & Trust Co.  
MANATEE LAND SALES CO.,  
Bradenton, Fla.

WILLIAM H. COLLIER, INC.,  
INVESTMENT BROKERS,  
DE LAND, FLORIDA,

offers a reliable, distinctive service in real estate investments. Our weekly letter is reliably informative. Your name and address will bring it to you without obligation. Address Claude Wright, General Manager, William H. Collier, Inc., De Land, Florida.

## FLORIDA INFORMATION.

Did you read the article in Sunland Magazine by the author of Manufacturers Record this month? My family came to Florida in 1834. We have lived here and been educated here ever since. I am in a position to give almost any information you might require. For reference—Fidelity Bank of New Smyrna, First National Bank of DeLand and First National Bank of Sanford. I have anything in the way of real estate that you might want. Don't hesitate to call on me by letter or wire. When in Florida look me up.

HARRY A. OSTEEEN,

410 Canal Street, New Smyrna, Fla.

## FLORIDA PROPERTY.

Acreage, Orange Groves, Farm Lands, Subdivisions and Business Property in the heart of the state that affords exceptional opportunities for investments and developments. Let me act as your broker. I have long been a resident and know the state well, and have never recommended to any purchaser any property that did not enhance in value. References: Munroe & Chambliss National Bank, Chamber of Commerce or any local merchant.

C. C. BENNETT,

Simmons Block, Ocala, Fla.

## IT'S FREE—IN FLORIDA.

The Finest Year 'Round Climate in the World—U. S. Weather Bureau; they now call FLORIDA the "Sun Porch of the Nation;" originally the name FLORIDA meant merely "The Land of Flowers," but nowadays it also means unlimited opportunity—Health, Comfort, Happiness, Wealth; no state income or inheritance taxes ever—the Playground of the Rich; the Paradise of the Poor. TAMPA is FLORIDA'S Largest City—State Census, 1925; special reduced rates on all railroads and steamship lines; send today for booklet and Fall list of Investments, Homes, Groves and Farms. Tampa-West Coast Realty Co. (Inc.), Opp. Post Office "Since Before the War," Tampa.

## MISSISSIPPI

## MISSISSIPPI GULF COAST.

The Mississippi Gulf Coast is one of the beauty spots of the earth. An ideal climate all the year round; truck farming is carried on throughout the winter months. In addition to that we have a splendid fruit country; we grow oranges, grapefruit, pecans, peaches, pears, figs, etc. It is also one of the healthiest places in the world and is building up rapidly. Write for illustrated booklet.

B. C. COX, Realtor,  
Gulfport, Miss.

## FARM, FRUIT AND TRUCK LANDS

## MISSISSIPPI

## IN CASE OF DEATH

## WE DEED LAND TO HEIRS.

We are trustees for 3500 acres of land of one mile frontage on Lake Mississippi, in Mississippi. We will sell this in 40-acre tracts at \$800 per tract. The terms are \$200 cash, and balance at 6%, payable \$8.50 per month. If the tract is not paid for upon death of buyer, full title will be deeded to the heirs. This is an unusual offer, so write at once.

MANSFIELD LAND & LOAN CO.,  
New Board of Trade Bldg.,  
Kansas City, Mo.

## SOUTH CAROLINA

NEW SETTLERS WANTED—Good R. R. facilities, fine highways, even climate, farm 12 months in year; plenty fertile lands cheap; hydro-electric power. Ideal for agriculture or manufacturing. Write Chamber of Commerce, Bamberg, S. C.

## TENNESSEE

AT A SACRIFICE—789 acres, Meadowbrook Farm, 10 miles from Clarksville, Tenn., on state route No. 13. A real Southern plantation. Grows fine tobacco, corn and hay in abundance. C. E. Meriwether of New Orleans, owner. Write or see sales agents, Security Trust Co., Clarksville, Tenn.

## SUBURBAN PROPERTY

## A WORTHWHILE OPPORTUNITY.

250 acres, 8 miles from White House. Best large suburban proposition at the gates of National Capital. Low price and terms to suit. Lots will sell after development from 5c to 15c per sq. ft. About two miles frontage on U. S. Conduit and Maryland State Roads. Good as city streets.

J. S. TOMLINSON, Owner,  
1344 Vermont Ave. N. W., Washington, D. C.

## BUSINESS OPPORTUNITIES

WANTED TO BUY a small manufacturing business—one with established trade and light work.

Hoffman Cigar Co., Miamisburg, Ohio.

A SUBURBAN DEVELOPMENT within the City Limits IN NORTH CAROLINA'S FINEST CITY. Three hundred lots already developed and sold. Two hundred homes built. Five hundred lots yet to be developed. Will sell as a whole at a price which will give the buyer large opportunity for profit.  
F. C. ABBOTT & CO.,  
Charlotte, N. C.

## LOUIS B. BOUCHELLE, JR.,

Lands at New Smyrna, Florida.  
BUSINESS PROPERTY that will pay a profitable income upon the principal invested in a town that is not dependent upon the tourist rush.

PROSPEROUS WHOLESALE GROCERY BUSINESS at Palatka, Florida, a logical distributing point. Preferential water and rail freight rates. Ample warehouses on trunkline railroad, direct connection within city limits with two other trunklines. On navigable St. Johns river, with direct steamboat connection with New York. Business established over 20 years and now doing more than \$50,000 monthly. Splendid, prosperous clientele. Excellent exclusive accounts. Owners wish to retire. Address No. 6519, care of Manufacturers Record.

30% INVESTMENT—We offer the largest pottery business in the Southeast, located in a suburb of Augusta, Georgia. Annual capacity \$75,000, with a net profit of \$15,000. Unlimited clay of finest quality. Unexcelled transportation facilities, both rail and water; ideal climate, attractive living conditions. Abundance of labor and great demand for products. Owner wishes to retire and will sell for one-half cash, balance carried on long time. Price \$52,000.  
LEAGUE, DUVALL & POWELL, Realtors,  
Augusta, Georgia.



## BUSINESS OPPORTUNITIES

**FOR SALE—RETAIL LUMBER YARD.** Located county seat; only yard in town; two yards in county. Half interest to right party. J. L. Hicks & Son Lbr. Co., Doniphan, Mo.

**FLORIDA INVESTMENTS—HOTELS,** apartments, business properties, sites and financing in South Florida cities. A. I. V. WILSON CORP., West Palm Beach, Fla.

## COLLECTION

**WE COLLECT NOTES, Accounts, Claims** anywhere in world. No charges unless collected. MAY'S COLLECTION AGENCY, Somerset, Ky., and Orlando, Fla.

## LETTER SPECIALISTS

**JED SCARBORO** prepares letters that will sell anything worth buying. Let him give you a blend of ginger and judgment that will soak into your prospect's bump of belief and get the action you are after. Ask for an ounce of evidence. 557-A Halsey St., Brooklyn, N. Y.

## INDUSTRIES WANTED

**DILLON, S. C.**—Population 3000, on main lines A. C. L. and S. A. L. railroads, wants furniture, woodworking, textile, canneries, garment and other factories; cheap hydro-electrical rates; excellent labor; tax exemption; working co-operation. Local capital put in with right men. Address CHAMBER OF COMMERCE.

**WANTED**—An industry in which fuel cost is vital factor. Neodesha population 5500, mid-continent location; has dependable supply of natural gas, cheap electrical power, river water, good railroad service. Local money to help finance. Address CHAMBER OF COMMERCE, Neodesha, Kansas.

**BALL GROUND, GEORGIA;** population 1200, second-class postoffice, monthly pay roll \$12,000, located 49 miles northwest Atlanta, Ga., on L. & N. Railroad; graded highway between Atlanta and Knoxville, Tenn.; plenty cheap labor, unlimited electric power. Ideal location for any manufacturing industries. If interested will make you a satisfactory proposition. Great possibilities in mineral developments. Write Ball Ground Chamber of Commerce.

## INDUSTRIAL PLANTS

**FOR SALE**—Broom Factory, fully equipped and running. Will sell or lease to right party or sell part stock to hustler. Present owners have other business that take all their time. Give reference and experience in first letter. Address No. 6527, care of Manufacturers Record, Baltimore, Md.

**CLARKSVILLE, Tenn.,** on Louisville & Nashville and Tennessee Central R. R., on Cumberland River and Magnolia Auto Route. Population 10,000.

Favorable labor conditions, home of American Snuff Co., Branch American Cigar Co., Dunlop Milling Co., Mason & Hughes pants factory.

Large wholesale houses, one of the South's best distributing centers. Largest dark fired tobacco market.

Factory for sale, price \$22,000, first-class repair. Brick building, three stories and basement, hardwood floors; on Tennessee Central spur track; sprinkler system throughout plant; fire-alarm system, electric elevator, 100 H.P. boiler; floor dimension of main building 44 x 104 feet and adjoining ironclad wing 49½ x 75 feet, on about 1½ acres of ground. Appraised January 20th by Lloyds Thomas, sound value \$51,000; suitable for any kind of manufacturing.

Co-operation of Chamber of Commerce and three civic clubs assured. Address Adolf Hach, President of Rudolph, Hach & Co., Inc., Clarksville, Tenn.

## HOTEL SITE

**UNUSUAL INVESTMENT OPPORTUNITY.** Waterfront hotel site at Palatka, Florida, a fast-growing city of 10,000, on beautiful mile-wide St. Johns river. Fronts 75 feet on river, has depth 160 feet; 18 feet of water will allow any yacht to anchor right at door. Adjoins bridgehead at which great network state highways center, running east, west, north and south. In heart business district and only one block from postoffice. Right in path of thousands of tourists. Nearly everything for table can be grown locally. Labor conditions good. Address Palatka Development Company, Palatka, Florida.

## FACTORY SITES

**EXCELLENT FREE location,** for either cotton-mill or soil-pipe factory, will be donated by citizens of Pell City, Ala. Write Chamber of Commerce, Pell City, Ala.

## PORT NEW ORLEANS.

Industrial Sites fronting Mississippi River; Railroad Facilities. MERAUX & NUNEZ, Realtors, Arabi P. O., New Orleans, La.

**FREE ACREAGE** in town in Southeastern Nebraska, gravel highway, two railroads, ample electrical power, low taxes. Address No. 6520, care Manufacturers Record.

## WONDERFUL OPPORTUNITY IN GEORGIA WATER POWER.

**FOR SALE OR LEASE.** 10,000-horsepower factory site, located near Macon, on Southern Railway. This property has been surveyed by competent hydraulic engineers, who state this estimate is very conservative. Full report on request. CARSTARPHEN, 612 Poplar Street, Macon, Ga.

**MR. MANUFACTURER, HERE'S YOUR OPPORTUNITY.** Factory sites, large or small, on two trunkline railroads, with direct connection with third—Atlantic Coast Line, Southern, Florida East Coast—at Palatka, Florida, on St. Johns river. Three steamboat lines; direct connection with New York. Preferential rail and water freight rates. Fuel, water and power are adequate, reliable, cheap. Year-around tempered summer climate. Low living costs. Good labor conditions. Growing city of 10,000. Situation ideal for wide distribution by water, rail, truck. Can be leased for purely nominal sum. Address Palatka Development Company, Palatka, Florida.

## PATENT ATTORNEYS

**PATENTS**—Booklet free. Highest references. Best results. Promptness assured. Watson E. Coleman, Patent Lawyer, 644 G St. N. W., Washington, D. C.

**PATENTS—TRADEMARKS—COPYRIGHTS** Write for our free Guide Books and "RECORD OF INVENTION BLANK" before disclosing inventions. Send model or sketch and description of your invention for our Inspection and Instructions, free. Terms reasonable. Highest references. VICTOR J. EVANS & CO., 712 Ninth, Washington, D. C.

**INVENTORS**—Send sketch or model of your invention, for opinion concerning patentable nature, and exact cost of applying for Patent. Book, "How to Obtain a Patent," sent free. Gives information on patent procedure and tells what every inventor should know. Established 25 years. Chandlee & Chandlee, 412 Seventh St. N. W., Washington, D. C.

## MANUFACTURERS AGENTS

**CALLING ON ARCHITECTS and Contractors** to secure sales on newly-developed, high-grade commercial Kalamain Door, sold at prices on which large volume can be developed. No. 6438, care Manufacturers Record.

## SITUATIONS WANTED

**A 1 LUMBERMAN** desires connection; 18 years' experience inspecting, buying and selling, yard management. Also correspondence and office detail. Best references. Can report at once. L. F. J., Box 67, Ashland, Ky.

## SITUATIONS WANTED

**CIVIL ENGINEER,** 23 years' experience in the development of acreage, surveying, mapping roads, sewers, water supply, etc., desires charge of Southern development. References exchanged. Address No. 6522, care Manufacturers Record.

## CONTRACTORS, CUT THIS OUT.

Competent Steam Shovel Engineers, Two and Three Drum Derrick Engineers, Locomotive Engineers, Locomotive Cranemen, Electric Cranemen, Air Compressor Men, Pump Men and Firemen furnished on short notice. Wages adjusted to suit conditions. W. E. KING, 1809½ Fourth Ave. North, Birmingham, Ala.

**MINING ENGINEER**—Industrial executive, 20 years' experience in mining, plant installation and operation, desires position with reliable company. Expert in cost distribution; conscientious and dependable. Southern location preferred. Address No. 6526, care Manufacturers Record.

## MEN WANTED

**WANTED**—Engineer, partly familiar with traveling crane and electric hoist construction. Address No. 6525, care Manufacturers Record, Baltimore, Md.

**SALESMAN FOR A WELL-ESTABLISHED** Leather Belt Manufactory; good salary and bonus. Address No. 6516, care Manufacturers Record, Baltimore, Md.

**SALES AGENTS WANTED IN SOUTHERN STATES** to represent nationally known manufacturer of approved fire extinguishers. Address No. 6518, care Manufacturers Record, Baltimore, Md.

**SALESMEN WANTED**—Our proposition offers greatest earning possibilities to the real salesman than is offered to him in most any other line. A credit and collection service with a bonded recovery obligation. American Security Credit Company, General Offices, St. Louis, Mo.

**WANTED — HIGH-GRADE SALESMEN AND SALES AGENTS CAPABLE OF REPRESENTING A NATIONALLY KNOWN QUALITY BRAND OF TECHNICAL PAINT SPECIALTIES, EXCLUSIVELY OR IN CONJUNCTION WITH SOME OTHER LINE. FULL INFORMATION AS TO EXPERIENCE, PRESENT CONNECTIONS AND REFERENCES REQUIRED. ADDRESS No. 6485, CARE OF MANUFACTURERS RECORD, BALTIMORE, MD.**

**SALARIED POSITIONS \$2500 to \$25,000,** upward; executive, technical, administrative, engineering, manufacturing, professional, financial, etc., all lines. If qualified and receptive to tentative offers you are invited to communicate in confidence with the undersigned, who will conduct preliminary negotiations. A method is provided through which you may receive confidential overtures without jeopardizing present connections, and in a manner conforming strictly to professional ethics. Established 1910. Send name and address only for preliminary particulars. No obligation. R. W. Bixby, Inc., 268 Main St. (Suite 803), Buffalo, N. Y.

## MACHINERY AND SUPPLIES

**FOR SALE**—Incline Equipment, Hoist, Boiler and Tram Cars, all complete. Used in transporting lumber and logs. THE BYRNS BROS. LUMBER CO., 1101 Ingalls Bldg., Cincinnati, Ohio.

**AERIAL TRAMWAY FOR SALE**—We offer our Aerial Tramway for sale at greatly reduced price; may figure to sell all or any part of same. Star Brick & Tile Co., 610 E. Quincy St., San Antonio, Tex.

**FOR SALE**—10 Buffing and Polishing Lathes, Dust Hoods, Fans, both pressure and exhaust; Plating Dynamo. All in excellent condition. If in need of any of this material send for list. Purchasing Agent, SEARS, ROEBUCK & CO., Chicago, Ill.

# SHREVEPORT LOUISIANA

## "THE PEP CITY OF THE SOUTH WEST"

*It's on the map—Look at the northwest quarter!*

Among the Invigorating Pines

A Population of 75,000 People

*And a Trade Territory of One Million People*

WITHIN A RADIUS OF 100 MILES

Total Bank and Building and Loan  
Resources .....\$57,189,000.00

Six Railroads with Twelve Outlets serve  
this city with the best of transportation  
facilities. Railroad Pay Roll per  
year .....\$3,000,000.00

Hard Surfaced and Smooth Gravel High-  
ways lead to SHREVEPORT from  
every direction.

\$4,000,000.00 spent on Public Schools.

Payroll For Oil Industries in North  
Louisiana is estimated at \$15,000,000.00

### BUILDING PERMITS—

1923 .....\$9,467,382.00

1924 ..... 8,069,487.00

1925 (to Oct. 1) ..... 5,049,303.00

### Cotton Grown in Caddo Parish—

1924 .....40,000 Bales

1925 (estimated) .....60,000 Bales

10 Oil Refineries produce approximately  
40,000 cars of gasoline per year. Second  
largest glass factory in the world.

Natural Gas for Fuel and Industrial  
Consumption.

SHREVEPORT SPELLS SUCCESS!

Centrally located in this wonderful city is a one-story brick and reinforced concrete building with 32,000 square feet of floor space, including railroad unloading platform and 120 lineal feet of show window space on principal thoroughfare. This building has a foundation for two additional stories, is strictly fire-proof and is unexcelled for light and ventilation. Rent 3½ cents per square foot per month. The right location for a wholesale and retail distributing center.

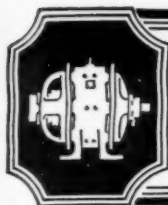
**W. H. WERNER, Owner**

P. O. BOX 908

SHREVEPORT

LOUISIANA





# RESALE DEPARTMENT

MACHINERY

EQUIPMENT

SUPPLIES



*"Used Machinery Costs Less"*  
 Do you need any steam and electric machinery or boilers? We specialize in power plant equipment of all kinds.  
*The Randle Machinery Co. 1734 Powers St. Cincinnati, O.*

## 3 Phase Motor Bargains 60 Cycle

HP	MAKE	SPEED	VOLTS	REMARKS
20	Burke	1800	550	With 3" American Pump.
20	Westinghouse	1760	2200	With 200-GPM Pump.
75	Crocker-Wheeler	1800	550	With 1000-GPM Pump.
(3) 75	General Electric	514	440	Type IK.
(3) 100	General Electric	720	550	Type IK.
100	Crocker-Wheeler	1730	440	With 1200-GPM Pump.
100	Allis-Chalmers	690	440	Type AN.
150	General Electric	600	440	Type IK.

Shipment from Greensboro, North Carolina Stock.

WILSON-HOCK COMPANY

HOPEWELL, VIRGINIA

## IDLE MACHINERY

cannot be disposed of if no one knows  
 you have it to sell.

Advertise it in the  
**MANUFACTURERS RECORD**

## Liquidation Sale

Good Condition

Crated for Shipment

72" Beer still. 60" alcohol column, closed copper tanks, etc. 48" still-distilled water plant, washing, filling, labeling machines. Diffusion battery (Autoclave) acid proof, 9 cells. Four Roller Presses for garbage, bark or other fuel. 25 AC. motors 5-30 HP. Transformers 1-125 KVA. Lead Cable and Elec. supplies. Bronze centrifugal pumps. Steam pumps. Air Compressors. Barrel Hoop driver. Water tower and tank. Brass foundry outfit. 250 Sq. Corr. Galv. sheets. Conveyors. Belting. Gauges—plain and recording. Crosby Gauge Tester. Thermometers, Scales, etc.

E. W. DEMING

FULLERTON

LOUISIANA

## MOTORS (3 ph-60 cycle)

150 h.p. and 100 h.p. slip ring; 300 h.p. and 100 h.p. squirrel cage and fifty other sizes—big stock 220 Volt direct current motors, boilers, engines, turbines, condensers, generators, etc.

HACKLEY MORRISON CO., INC.  
 Richmond, Va.

## FOR SALE

- 1—20-ton. Vilter CO<sub>2</sub> Ice Machine, High Side, Complete.
- 1—3-in. Centrifugal Brine Circulating Pump, 7 1/2 h.p. Motor.
- 1—20 h.p. Motor for Compressor, Equipment First Class.

HOTEL RUSSELL-LAMSON  
 Waterloo, Iowa

## FOR SALE

- 1—500 H.P. NAGLE CORLISS Engine, twin cylinder, 36" leather belt and countershaft.
- 1—20"x24" INGERSOLL RAND COMPRESSOR, 18"x24" steam, complete with tank piping, etc.
- 1—45 to 50 H.P. OTTO DIESEL ENGINE, like new, tank, compressor, etc.

THE CABLE EXCAVATOR CO.  
 Fernwood, Del. Co., Pa.

## H. R. T. BOILERS

- 1—84"x20' A.S.M.E. 135 lbs. pressure.
- 2—72"x18' A.S.M.E. 150 lbs. pressure.
- 1—78"x16' Penna. 125 lbs. pressure.
- 1—60"x18' Penna. 125 lbs. pressure.
- 1—60"x16' Penna. 125 lbs. pressure.
- 1—100 H. P. vertical 140 lbs. pressure.

Above boilers complete with fronts, castings, and regular fittings. Priced low for month of December.

## M. J. HUNT'S SONS

1620 N. Delaware Avenue  
 PHILADELPHIA, PA.

## MOTORS AND DYNAMOS

300 H.P. and smaller ready for  
 immediate delivery

*We do rewinding, etc.*

S. J. STEWART [ELECTRIC]  
 531 St. Joseph St. New Orleans, La.  
 Established 1899

## BOILERS

414 H. P. Stirling 160 lbs. A.S.M.E.—only used 18 months; two 250 H. P. Heine 160 lbs. used two years; three 200 H. P. Scotch 160 lbs.; fifty other boilers, return tubular, locomotive type, vertical, etc.—all guaranteed, will erect anywhere.

HACKLEY MORRISON CO., INC.  
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## ELECTRIC HOIST

With double tandem drums, 30x30 and 18x20, with 100 h.p. 3 ph., 60 cycle, slip ring motor. Large repair shops, storage, trackage, immense stock dependable used machinery.

HACKLEY MORRISON CO., INC.  
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H.R.T. and Water Tube. Complete with fronts and all fittings. Large stock located in nearly every Southern state. We can save you 1/2 to 3/4 on insured boilers.

W. M. SMITH & CO.

Box 1709 Birmingham, Ala.

## USED BOILERS

1st Class Condition

- 2—264 H.P. B. & W. Water Tube, 150 lbs. with Combustion Eng. Co. stokers.
- 1—250 H. P. Altman & Taylor B. & W. type Water Tube 150 lbs.
- 1—250 H. P. Heine Water Tube, 125 lbs.
- 1—235 H.P. Heine Water Tube, 125 lbs. with oil burning equipment.
- Also—H.R.T. Locomotive Economic and Vertical.

HENRY A. HITNER'S SONS CO.  
 4501 Richmond St. Philadelphia, Penna.

## BORING MILLS

- 1—72" Betts Vertical, 2 swivel heads on rail. Belt drive or motor drive.
- 1—36" Bullard, Vertical Turret Mill, 1 turret head, 1 side head for belt or motor drive.

## PLANERS

- 1—120"x120"x25' Sellers, 4 heads, constant speed motor drive.
- 1—120"x60"x22' Niles, 4 heads, belt drive.
- 1—48"x48"x10' Pond, 3 heads, reversing motor drive, 220 volts. D. C.
- 1—26"x26"x8' Niles (Heavy) 1 head belt driven.

Partial List

MARR-GALBREATH MACHINERY CO.  
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GOOD USED

Transformers  
 Generator Units  
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 Motor Generators  
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We want to turn some of our enormous stock into cash—therefore send us a list of your requirements. You'll be surprised at our Low Prices.

**NATHAN KLEIN & CO.**  
MOTORS 208 CENTRE ST., N.Y. DYNAMOS

25th Year

Money-Back Policy

**Machine Tools**  
**Power Equipment**      **Boilers**  
**Electric Motors**  
**DELTA EQUIPMENT CO.**  
148 N. 3rd St.      PHILADELPHIA

**OIL ENGINES**  
6—25 HP Fairbanks Morse Type Y.  
3—50 HP Fairbanks Morse Type Y.  
1—80 HP Anderson K. D. C. to 3 Ph. Alternator.  
2—75 HP Fairbanks Morse Type Y.  
2—150 HP Fairbanks Morse Type Y.  
**MID CONTINENT EQPT. & MACHY. CO.**  
135 East Bay Street, Jacksonville, Fla.  
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**RADIATORS**  
Carload used, tested, guaranteed steam radiators—substantial saving—Will contract to install heating plant in factory requiring them.  
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**PIPE**  
2000'—10' Class A Universal C. I. Water Main in 6' lengths, weight per ft. 60.5 lbs.  
700'—14" Class A Universal C. I. Water Main in 6' lengths, weight per ft. 94.5 lbs.  
Write for Bulletin K-1 listing this pipe and a large stock of General Equipment.  
**NASHVILLE INDUSTRIAL CORPORATION**  
Old Hickory, Tennessee

**BARGAINS**  
Chicago Duplex Air Compressor 690 cu. ft., 19" x 12" x 14".  
**\$750.00**  
Pond Radial Drill 8'10" column to spindle. #5 Morse taper  
**\$500.00**  
Jones & Lamson 3"x36" Flat Turret Lathe. 95% new  
**\$1000.00**  
Gisholt Turret Lathe 24" x 6', 6 1/4" hollow spindle. 95% new  
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Walcott 26" x 10 1/2" Quick Change Gear Heavy Duty Lathe 95% new  
**\$690.00**  
Cincinnati #3 Plain Miller  
**\$250.00**  
Pond Planer 48" x 48" x 22', 2 rail and 2 side heads  
**\$2000.00**  
Covington #2 Single End Punch and Shear. Architectural jaw. 12" throat. Capacity 1" thru 1"  
**\$450.00**  
20 Machinists Vises 5" to 7" jaw  
**\$7.50 each**  
Milling Cutters, assorted sizes  
**One-half Price**

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**AIR COMPRESSORS**  
4—210 ft. Chicago-Pneu. P2-DGL gasoline.  
1—360 ft. Chicago-Pneu. NSBE with motor.  
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2—788 ft. Chicago-Pneu. OCEB with motor.  
2—877 ft. Ing.-Rand CB-2 with motor.  
1—877 ft. Ing.-Rand RB with motor.  
3—1302 ft. Ing.-Rand PRE-2 dir. con. 2200-60-2 or 3.  
2—2830 ft. Ing.-Rand PRE-2 dir. con. 6600-25-3.  
4—2830 ft. Ing.-Rand PRE-2 dir. con. 2200-60-3.  
2—5000 ft. Centrifugal compressors. 2.5 lbs. pressure direct connected to 75 H.P. motor. (New Traylor Compressors)  
**HOISTS**  
65 H.P. D.D. CLYDE with Sw., 220 volt D.C.  
100 H.P. S.D. CLYDE shaft hoist with motor.  
200 H.P. D.D. OTTUMWA shaft hoist with motor.  
5 and 8 ton Westinghouse-Baldwin trolley locomotives 220 volt D.C., 36 to 42 inch gauge.

**FOR SALE**  
Worthington 10x10 belt driven air compressor used three months; 25 hp. 2300 volt, A. C. G. E. motor; one Goulds triplex pump geared to 15 hp. 220 volt, A. C. Westinghouse motor. All this equipment is in good condition. Reason for sale. Water supply from deep wells to surface source.  
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1—14"x6" engine Lathe ..... \$150.00  
1—24"x16" engine Lathe ..... 450.00  
1—Sullivan Rock Drill ..... 75.00  
1—Electric driven Saw ..... 90.00  
1—Steam hoist, boiler and cable ..... 250.00  
**A. C. LOVE COMPANY**  
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**AIR TOOLS**  
We have \$50,000.00 stock of "Thor," "Little David," "Little Giant," "Boyer" and "Keller" air motors, drills, hammers, etc. Also new parts for all standard makes of air tools.  
We give manufacturer's guarantee and save you from 40 to 50 per cent.  
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**Stock of Guenther Governors**  
for steam engines by Mid Western Jobber. A-1 condition; no sacrifice, write for list and prices.  
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**SECURE THESE BARGAINS**  
2—350 H. P. Geary Water Tube Boilers, like new—used four months.  
1—Cochran Feed Water Heater and Purifier 42"x42"x84".  
1—Lidgerwood Combined Friction Drum and Brake and Reversible Link Motion MINING ENGINE, Cylinders 14"x18", Drum 48" dia. x60" face, complete and like new.  
1—Class AA2 Ingersoll-Rand Steam Driven Compressor 1190 cu. ft.

Write today

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**TWO BOILERS**  
250 to 300 H.P. each and CORLISS ENGINE.  
Size 18"x42" (about)  
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**25 CYCLE, 3 PHASE MOTORS**  
1—150 HP, 490 RPM, 440 V. Allis-Chalmers.  
1—85 HP, 750 RPM, 440 V. General Electric.  
1—75 HP, 750 RPM, 220 V. Lincoln.  
1—50 HP, 750 RPM, 440 V. General Electric.  
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1—30 HP, 750 RPM, 220 V. Fairbanks-Morse.  
Many other sizes also 60 cycle and D. C.  
**V. M. NUSSBAUM & CO.**  
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**THREE DESIRABLE TOOLS**

- 1—36"x16' Cleveland open side planer, one head on cross rail, one side head.
- 1—36"x18' American Tool Works lathe, quick change gear, 3 step cone, double back geared, taper attachment.
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The above three tools will be sold at reasonable prices, prior to moving.

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**AIR COMPRESSORS**

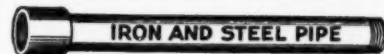
- 9—Chicago Pneumatic, 212 cu. ft. class "N-802" Portable Fuel Oil Driven Compressors, complete; excellent condition; used very little; special bargain for quick sale.

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Rethreaded, reconditioned, guaranteed, suitable for all practical purposes, furnished with new threads and couplings.

400,000 feet in all sizes from 24" to ¾".  
Also large stock of spiral pipe sizes 7", 10", 12", 14", 20", and 24".

Large stock of valves and fittings, screwed and flanged. Can make attractive prices.

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**FOUR STURTEVANT RING ROLL MILLS**  
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**WANTED TO BUY**  
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5000 New 4" Long Drill Pipe Couplings, \$2.15 ea.; 2000 6" Drill Pipe Couplings, \$1.50 ea.; 2000 4" Line Pipe Couplings, 85c ea.; 1000 8" Line Pipe Couplings, \$1.75 ea.; 500 12" Line Pipe Couplings, \$2.50 ea.  
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Established 1904  
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Large Stock, All Sizes Threaded and Coupled Mill Lengths  
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NEW AND USED  
New Threads - **PIPE** - New Couplings  
ALL SIZES CUT TO SKETCH  
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Furnished plain ends or threaded.  
All sizes bought and sold  
What are you in the market for?  
What have you for sale  
Pipe for every purpose  
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**SPECIAL:** a carload of 3" or 4". Cheap at any time, rethreaded and coupled.  
Your inquiry means—Another satisfied customer.

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An Unusual Opportunity to secure Good Used Pumps that are ready for immediate shipment.  
**PRICES ABOUT HALF WHAT YOU MIGHT EXPECT TO PAY!**  
Every one a bargain and a wide selection to choose from. Read this list carefully:—there is a pump for almost every purpose and at our prices it pays to buy for future use. But act quickly as they are all offered subject to prior sale.

**CENTRIFUGAL PUMPS**

- (Belt Driven)  
1—2" Worthington 150 G.P.M., 80' Head.  
1—5" Lea-Courtenay 800 G.P.M., 240' Head.

**(Direct Motor Drive)**

- 3—2" Lea-Courtenay 50 G.P.M., 88' Head.  
1—2" Lea 50 G.P.M., 88' Head.  
1—2" Lea 100 G.P.M., 85' Head.  
1—4" Gould's 400 G.P.M., 75' Head.

**(Turbine Driven)**

- 1—4" DeLaval 500 G.P.M., 404' Head.  
1—5" Gould's 400 G.P.M., 577' Head.  
1—12" United Iron Works 4500 G.P.M., 58' Head.

**STEAM PUMPS****(General Service Pattern)**

- 2—7½x5x6 Worthington 133 G.P.M., 150 lbs. pressure.  
1—18x16 Epping-Carpenter 500 G.P.M., 300 lbs. pressure.  
1—10 and 16x10½x18 Laidlaw-Dunn-Gordon 800 G.P.M., 150 lbs. pressure.  
1—14 and 22x12x24 Epping-Carpenter 1200 G.P.M., 300 lbs. pressure.

**(Pressure Pattern)**

- 1—12x12 Worthington 4 G.P.M., 3000 lbs. pressure.

**PUMPING ENGINES**

- 1—14 and 25x9½x24 Laidlaw-Dunn-Gordon 1600 G.P.M., 100 lbs. pressure.

**TRIPLEX PUMPS****(Direct Motor Drive)**

- 1—1½x10 Deane 10 G.P.M., 3000 lbs. pressure.  
1—2x10 Deane 17 G.P.M., 3000 lbs. pressure.  
2—3x6 Deane 27 G.P.M., 223 lbs. pressure.

**BY-PRODUCTS DIVISION**



# RAILROAD AND CONTRACTORS' EQUIPMENT



## CRANES FOR SALE OR RENT

- 1—20-ton, 8-wheel, OHIO, Type "CD" Locomotive Crane, Shop No. 2631, new May 1924, A.S.M.E. and Mass. boiler, 50 ft. boom; Bucket operating; used 4 months, like new.
- 1—20-ton, 8-wheel, INDUSTRIAL, Type "G" Locomotive Crane, Shop No. 3614, new 1918, A.S.M.E. boiler; 50 ft. boom; double drums; used one year, overhauled, excellent condition.
- 1—TYPE B ERIE, full revolving Steam Crawler Crane, Shop No. 2600, new 1924, ALL-STEEL CATERPILLARS, A.S.M.E. boiler; 40 ft. boom, bucket operating, overhauled, like new.

## STEAM SHOVELS

- 1—MARION MODEL 21, full revolving, Shop No. 4852, new 1924, latest type ALL-STEEL RIGID CATERPILLARS, A.S.M.E. boiler; 4-yd. dipper; standard boom and dipper handle, used 4 months, perfect condition, located West Virginia.

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- 36—4-yd., 36" gauge, WESTERN, Two-way side Dump, new 1923, Heavy Duty, 4-pedestal, STEEL DRAFT BEAMS, Box Girder Type Doors, overhauled, like new.
- 25—12-yd. sid. gauge, WESTERN, two-way side Hand Dump, Heavy Duty, All-Steel except wooden bodies 18 ft. long STEEL DRAFT BEAMS, M. C. B. trucks, overhauled, first-class condition.

## GREY STEEL PRODUCTS CO.

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- 1—No. 8, 25-ton capacity, 56-ft. boom. Mounted on 8 wheels, double drums, A.S.M.E. boiler. Complete with clamshell bucket. Good condition. Philadelphia.

Also other good cranes—inquire

PHILIP T. KING

"The Crane Man"

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## USED LUMBER

### All Long Leaf Yellow Pine

- 12"x12"—110,000 ft. lengths 23' to 31'4"
- 12"x12"—100,000 ft. lengths 11' to 29'10"
- 10"x12"—120,000 ft. lengths 19' to 30'
- 8"x12"—110,000 ft. lengths 6' to 24'
- 8"x10"—5,000 ft. lengths 8' to 14'
- 8"x8"—60,000 ft. lengths 3' to 31'4"
- 3"x8"—5,500 ft. lengths 12' to 15'
- 6"x12"—65,000 ft. lengths 10' to 29'
- 6"x8"—25,000 ft. lengths 2' to 29'
- 6"x6"—5,000 ft. lengths 12' to 32'
- 4"x6"—3,500 ft. lengths 10'
- 2"x6"—3,000 ft. lengths 10' to 18'
- Also 4"x12", 3"x12", 2"x12" and 2"x10" mostly short lengths.

616 pes. Oak 6"x12" lengths 1'3" to 2'0".

All priced low for quick sale.

Excellent condition. Complete list upon request.

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For Contractors, Cement Workers, etc.

- 6—7 "Ransome 'Bantam' Mixers with low charging hopper and platform; mounted on wood truck; steel wheels; 4 H.P. gasoline engine and steel housing.

WHILE THEY LAST at \$225.00 each.

- 2—5 "Standard" Mixers with platform; mounted on truck; with 4 H.P. gasoline engine. Price, \$150.00 each.

Also a large assortment of other mixers.

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Locomotive crane, Byers, Mounted, on caterpillar truck, operated by 30 HP GE 3 phase, 60 Cycle, 220 Volt, slip ring motor, equipped with 30' boom and 1/4-yd. clamshell bucket; price \$2000.00.

Motor Generator set, 2200 Volt, 225 HP GE synchronous motor, 3 phase, 60 cycle, coupled by nuttall coupling to 150 KW DC generator 5/4 RPM with starting oil switch and DC Switchboard; price \$800.00.

Wheel Press 125 Tons, 42" between strain bars, arranged for motor drive by silent chain; price \$500.00.

Tool Steel 1 1/2" Round to 2 1/8" Round 12c. per lb.

Guyan Machine Shop

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## LOCOMOTIVE

15 ton, 10x16, Baldwin 36 gauge, saddle tank special bargain—Large stocks used equipment—Storage trackage, repair shops.

HACKLEY MORRISON CO., INC.

Richmond, Va.

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EQUITABLE EQUIPMENT CO., INC.

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## STEAM LOCOMOTIVES, NEW

gauges 30", 36", 42" and standard (4' 8 1/2") or any intermediate gauge. Coal, oil or wood burning. Prompt shipment. Many satisfied users.

MOST ATTRACTIVE PRICES

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- 2—American, 36" Gauge, 14-ton saddle tank boiler pressure 140 lbs. Good operating condition. Bargain.

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## 60—STEEL UNDERFRAME CARS—60

Boxes, Gondolas and Flat Cars

40-ton capacity. Built by American Car & Foundry Co. in 1912. All uniform construction—Fish-belly type underframe—Arch-bar trucks—Farlow draft gear. Low price for quick movement. Photos and specifications on demand.

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## NEW WIRE ROPE

300,000 feet new plow steel and crucible cast steel hoisting rope, also galvanized hoisting and guy rope, sizes from 1/4" to 1 1/2" diam. 18,000 new wire rope and manilla rope blocks, single, double and triple. Prices considerably under the market.

Write for bulletin with full particulars.

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For Main Line—Sidings—Industrial—Mine and Quarry Tracks.

Frogs and Switches, Bolts, Spikes, Tie Plates, Steam Shovels, Locomotives, Cars, Cranes

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New Frogs and Switches at low prices.

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500 tons strictly first-class 75-lb. ASCE Relayers, with four hole angle bars. Favorably located for shipment South by water from Philadelphia.

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COMMERCIAL TRUST BUILDING  
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Smith—Koehring—Austin  
At attractive prices

Henry Levis & Co.

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5 Miles 30-lb.      10 Miles 60-lb.  
10 Miles 40-lb.      20 Miles 70-lb.  
5 Miles 50-lb.      5 Miles 75-lb.  
3 Miles 90-lb.

Also other sections for southern delivery.

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**Rails—Frogs—Valves**

2000 Tons 67½ Pound Russian Rail Good as new.

100 ton track scale

**Frogs—Switches—Guard Rails—Tie Plates**

From 4 to 12-inch cast iron valves and 4-inch Ludlow fire hydrants.

VIRGINIA IRON & METAL CO., Inc., Richmond, Va.

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Marion 32 steam shovel, caterpillars, 1¼-yd. dipper.  
Marion 21 steam shovel, caterpillars, ¾-yd. dipper.  
Marion 28 steam shovel, traction wheel, ¾-yd. dipper.  
Erie "A" steam shovel, caterpillars, ¾-yd. dipper.  
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Osgood steam shovel and crane, caterpillars, ¾-yd. buckets.  
Austin gas crane and dragline, caterpillars, ¾-yd. buckets.

ATLANTA LOCOMOTIVE & EQUIPMENT CO.  
ATLANTA, GEORGIA

40 Standard and 36" Gauge Modern Direct-connected Locomotives, in all types and weights from 8 to 75 tons.  
10 Standard and 36" Gauge Geared Locomotives, all weights.  
15 Steam Shovels and Locomotive Cranes of different types and sizes.  
8000 tons Relaying Rails, all sizes, on our Birmingham yards.  
100 sets 35 and 40-lb. Frogs and Switches; good as new.  
Many other articles in this line.

Your inquiries will receive careful and prompt attention.

BIRMINGHAM RAIL & LOCOMOTIVE CO.  
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Electric, Steam and Gasoline

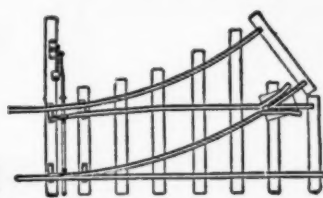
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1—Set Niles 20' motor and starter.....\$2000.00  
1—Set Bertsch 18' motor and starter.....\$1500.00

**MALLORY MACHINERY CORPORATION**  
Baltimore, Maryland

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Our  
Reputation**

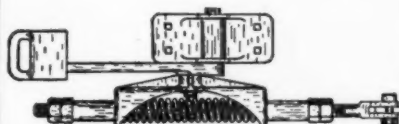
Good will is measured by quality produced, quality of service rendered, and by the prestige of the concern manufacturing the product. "CINCINNATI'S" quality, equipment and 19 years' specialized experience has given us the prestige. Let our engineers help you with your next track problem.

**The "Cincinnati" Frog & Switch Co.**  
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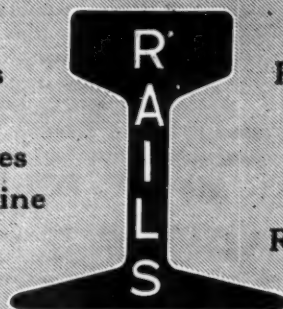
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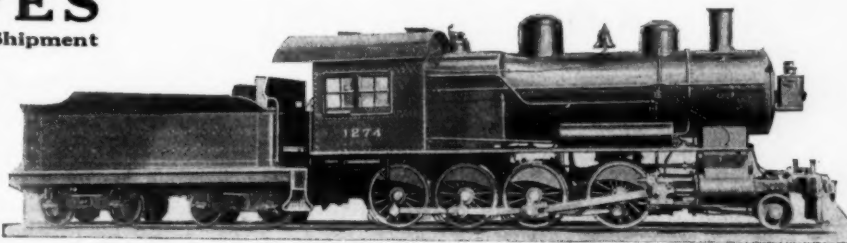
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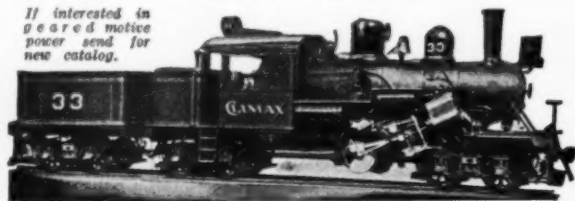
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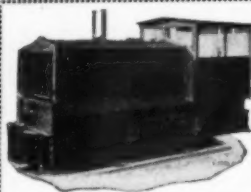
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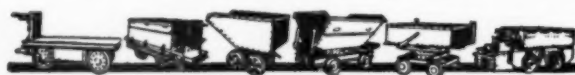
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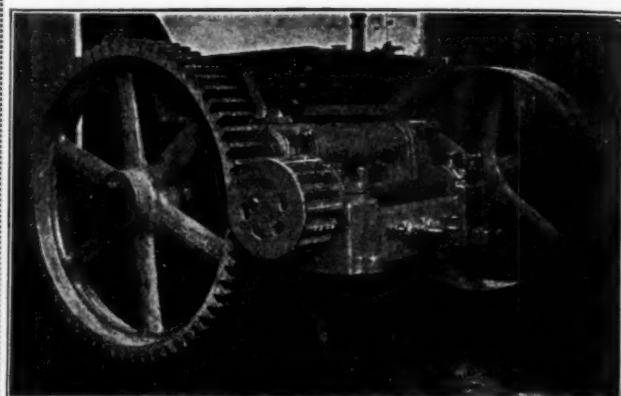
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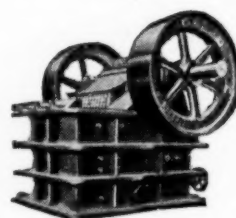
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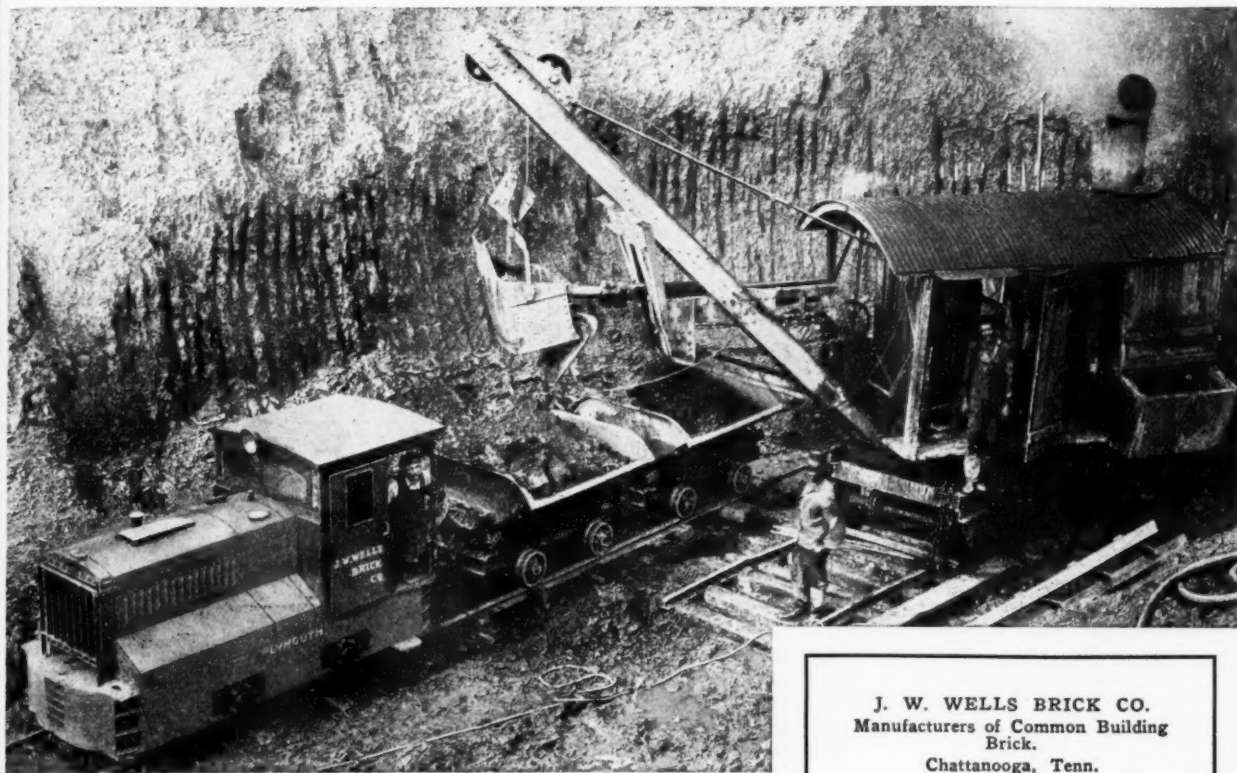
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*Plymouth Locomotive Works*

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J. W. WELLS BRICK CO.  
Manufacturers of Common Building  
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Very truly yours,

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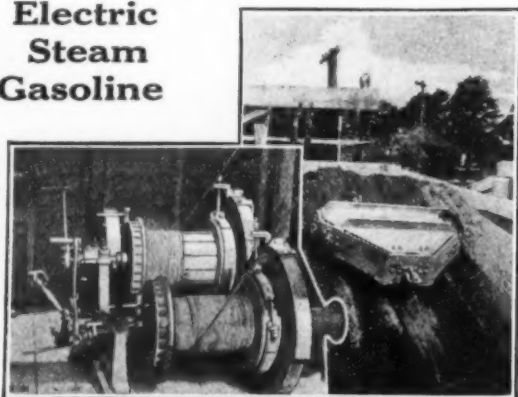
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*A well designed outfit that increases output and profits from small pits.*

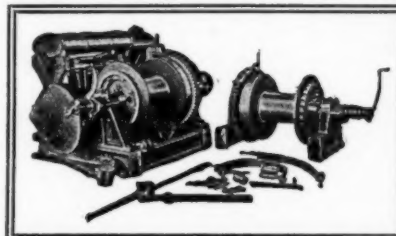
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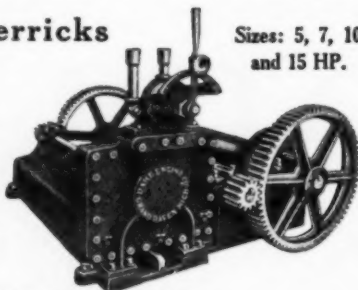
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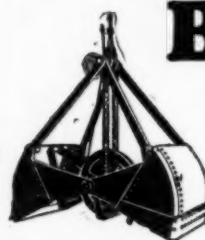
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Orange Peel

Locomotive Cranes - Steam Shovels  
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THE McMYLER-INTERSTATE CO.  
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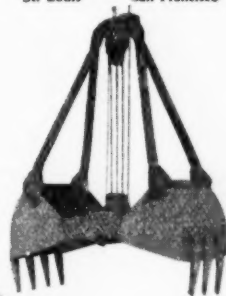
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Just as each of these animals is known for its ability to get a mouthful at every bite, so is each of the various types of Owen Buckets famous for its ability to grab a chuckful load every time the closing line is overhauled.

Owen Buckets, properly installed and operated, are guaranteed to do a bigger day's work than any other bucket of the same weight and capacity — or, write your own guarantee.

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## A 50-ton Crane with a 90-ft. boom

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Without out-riggers and with a 50-foot boom at right angles to tracks it handles 40 tons at 12-foot radius. With out-riggers it will handle 50 tons at 15-foot radius—boom at right angles to tracks.

The Type "Y" is equipped with 10"x10" reversing engines, 60" A.S.M.E. boiler, force feed lubrication to engines, bronze bushings throughout, Standard Gauge A.R.A. trucks and end and middle I-beam out-riggers.

It will pull 8 70-ton loaded cars 450 feet per minute. It has a single line pull of 16,500 pounds. It will lift 50 tons 33 feet per minute.

Years of experience have taught the Colorado Fuel & Iron Co. what and what not to buy in the line of equipment and we feel proud that they have come to us for one of the largest locomotive cranes on standard gauge carbody so far manufactured.

*Manufacturers of Locomotive Cranes, Flexible Tread Cranes, Gantry Cranes, Truck Cranes, Power Shovels, Clamshell and Orange Peel Buckets.*

Catalogs sent on request.

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## Gasoline Shovel, Drag Line, Crane—all in one

The "AMERICAN" Gasoline Roadbuilder on Continuous Chain Treads is shovel, drag line and utility crane all rolled up together. Handles a clamshell bucket with speed and precision.

The traveling mechanism is exceptionally rugged. Has traveled over rough ground, through thick underbrush and up grades of 15% and better.

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## BUFFALO LOCOMOTIVE CRANES

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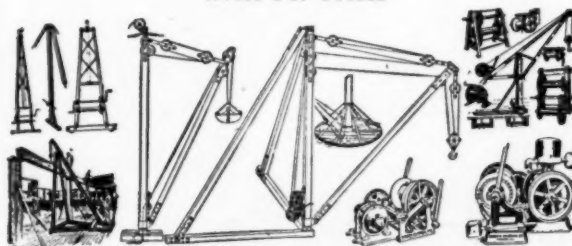


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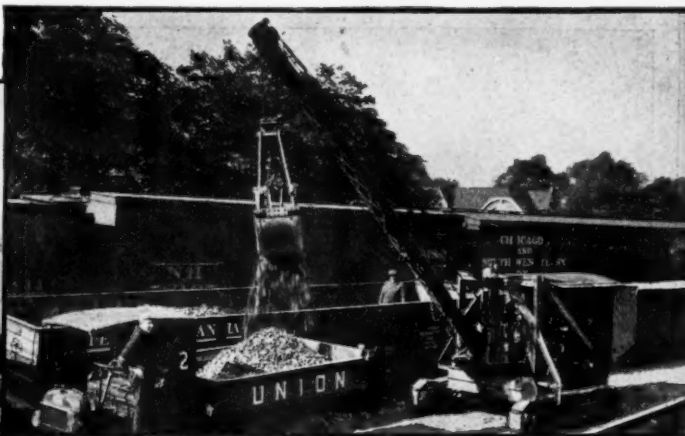
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These pictures show two of the attachments used by Good Roads Co. on their Bear Cat. Note full caterpillars and one man operation.

## This Bear Cat Owner Has Shovel, Ditcher and Clamshell

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That's an every day experience with Bear Cat owners. Here's the way it goes. Mr. Contractor buys a Bear Cat for clamshell work, we'll say. It works fine and is all that he expected. Then along comes a nice job of ditching which he could get if he had the machine to handle it.

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Good Roads Co., of Philadelphia, whose Bear Cat is pictured above, wrote:

"We now have three attachments for the 'Bear Cat'—the crane, which we used to great advantage last year in unloading cars of stone; the ditcher, which we also used to advantage on a large sewer job; and the shovel attachment. We feel that with these three attachments we are equipped to do practically any kind of work with the 'Bear Cat.'"

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Patents Pending



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SHOVEL



CRANE

# BYERS BEAR CAT

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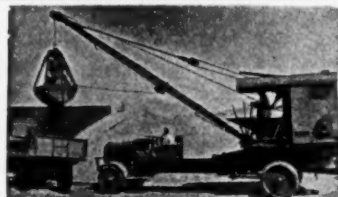
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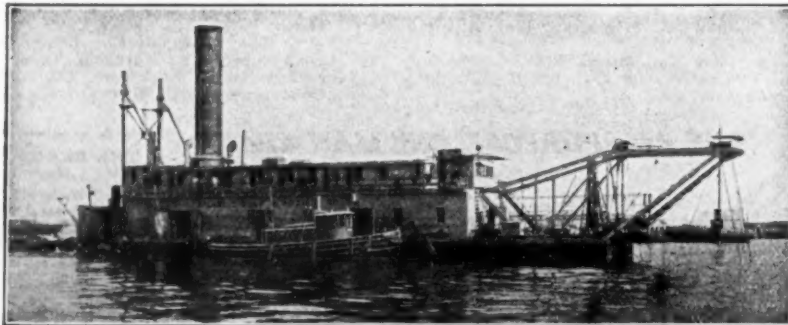
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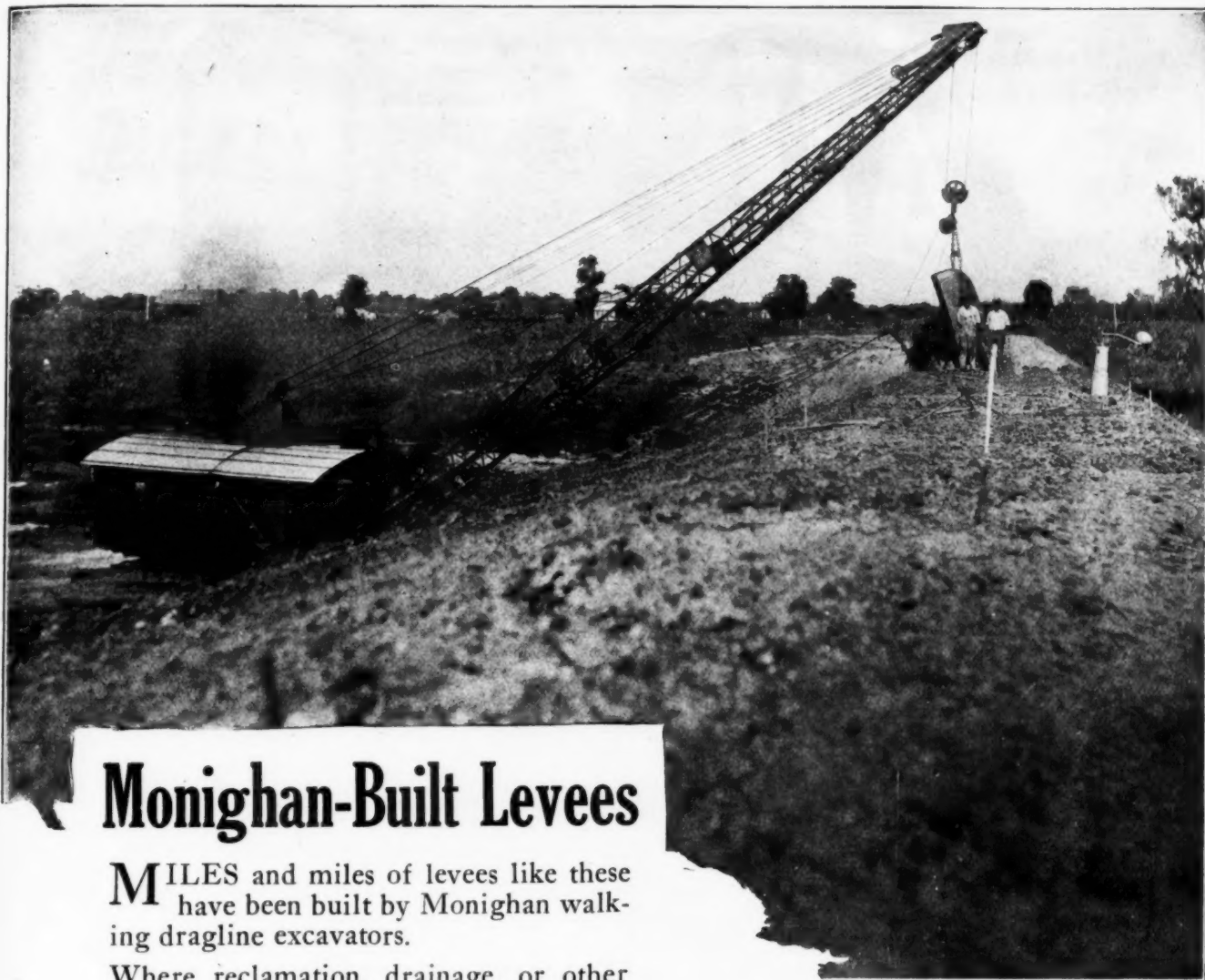
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Weather-Proof, Tamper-Proof House**

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- Move where you wish
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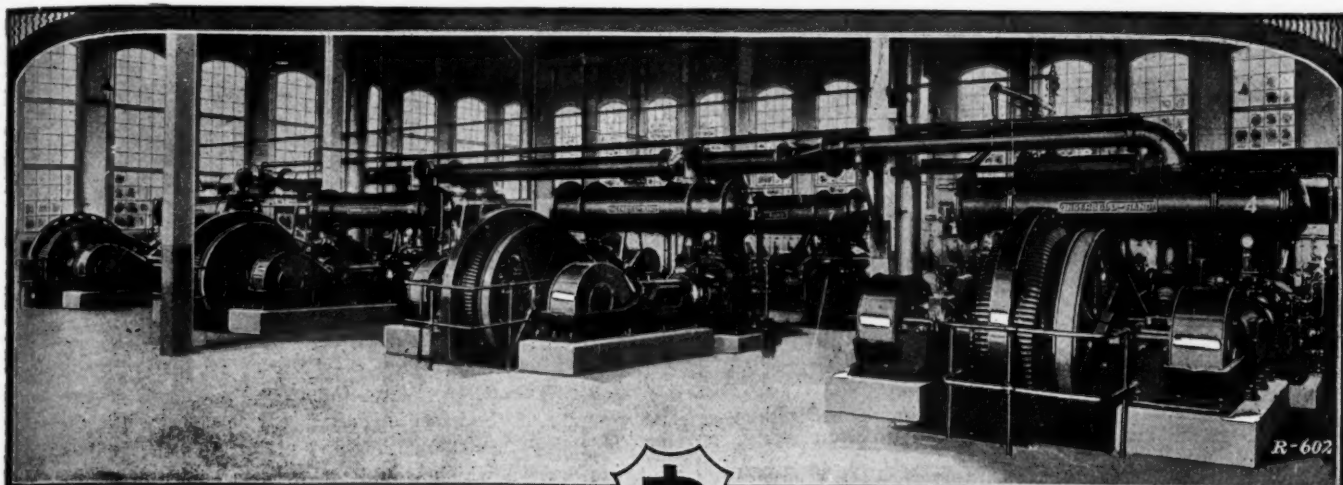
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—the light  
speedy  
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CRANE—SHOVEL  
DRAGLINE



It's just the machine the contractor has been looking for—light and interchangeable, with a full circle swing.

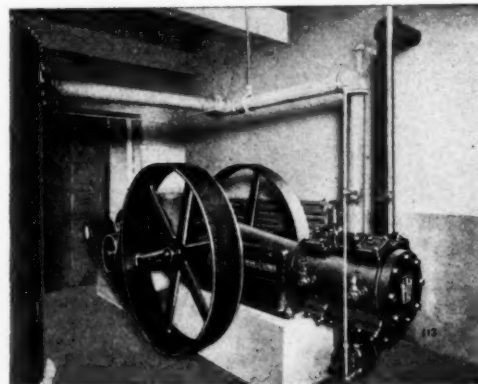
The Speeder is unsurpassed for versatility, as it can be used for any type of construction work. No additional drums or attachments are necessary other than the boom change when changing the Speeder Crane into a shovel. The Speeder is built in  $\frac{1}{2}$  yard capacity.

Write for full details regarding this ideal universal machine.

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AIR COMPRESSORS



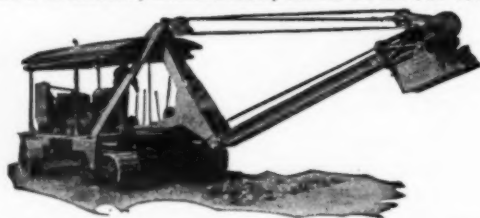
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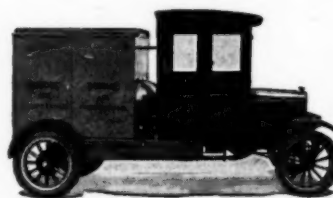


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New York Office:  
302 Broadway



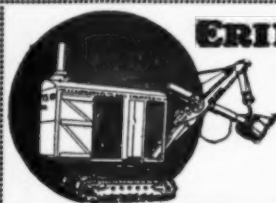
For emergency work, Public Service Corporations, Municipal Departments, etc., require an Air Compressor plant that can be rapidly moved from place to place.

The illustration shows a "Domestic" 92 cu. ft.

Compressor mounted on a 1-ton truck. The compactness of the "Domestic" makes it advantageous for so mounting.

Ask for Bulletin "AX" describing the complete "Domestic" line of Portable Air Compressor Units.

**DOMESTIC ENGINE & PUMP COMPANY**  
Manufacturers  
Shippensburg, Pa.



## ERIE Steam Shovels

For road grading; handling road materials with clamshell bucket; cellar and trench excavation; excavating sand and gravel, etc. We will be glad to send photos and data, showing just what the ERIE Shovel is doing on these classes of work.

Write for Bulletin "R"

**ERIE STEAM SHOVEL CO.**  
Formerly Ball Engine Co., Erie, Pa., U. S. A.  
Builders of ERIE Shovels and Cranes



## SHOVELS

The same quality of design and workmanship as found in P & H Traveling Cranes and Hoists. Convertible also into locomotive cranes, draglines and clamshell excavators. Ask for Bul. 82-X.

**HARNISCHFEGER CORPORATION**  
Successor to PAWLING & HARNISCHFEGER CO.  
Established in 1884  
3827 National Ave. Milwaukee, Wis.



Made in  $\frac{1}{2}$ ,  
 $\frac{3}{4}$ , 1 and 1  $\frac{1}{2}$   
cu. yd. cap.

## AIR COMPRESSORS FOR EVERY INDUSTRY

Catalog Gratis

**AMERICAN AIR COMPRESSOR WORKS**  
566-568 Hamilton Ave. Brooklyn, N. Y.

## ELLICOTT MACHINE CORPORATION

Hydraulic Dredges—Sand and Gravel Dredges  
Pumps for Sand, Gravel, Dredging  
Hydraulic Dredging Machinery  
Heavy Machinery

1111 Bush Street

BALTIMORE, MD., U. S. A.



*fuel for 90¢ a day!*

*The NEW Northwest 4 Cylinder Diesel*

*The new*




## Cylinder Diesel

FOR YEARS the material reduction of the cost of shovel operation has been the goal sought for by every shovel manufacturer. The Diesel principle of internal combustion engine has offered the nearest approach to real economy but to date the excessive bulk and vibration of the Diesel has made it a questionable form of power plant for shovel, crane and dragline service.

Northwest has given careful consideration to the construction and operation of Diesel engines for many months but were not content to place a Diesel Engine on the market that did not fill the requirements of the service in every way.

The result of long and careful studying and experimentation has resulted in a new Northwest product—the Northwest-Cummins Diesel Engine, a 4 cylinder Diesel that practically eliminates vibration. The first of these engines has been in operation in the field for six months. Here it has demonstrated first, its economy—operation on 90 cents a day.

Second, its reliability—it starts instantly in any kind of weather.

Third, simplicity—absolutely free from complications.

Fourth, accessibility—every part is easily reached and examined.

Fifth, flexibility—it burns any grade of oil and acts quickly when the load comes on.

—And sixth, freedom from destructive vibration.

Send for the Northwest Diesel book and learn all about it.

Northwest Engineering Co., 1733 Steger Bldg., Chicago

The largest exclusive builders of gasoline, electric and Diesel powered shovels, cranes and draglines

# NORTHWEST

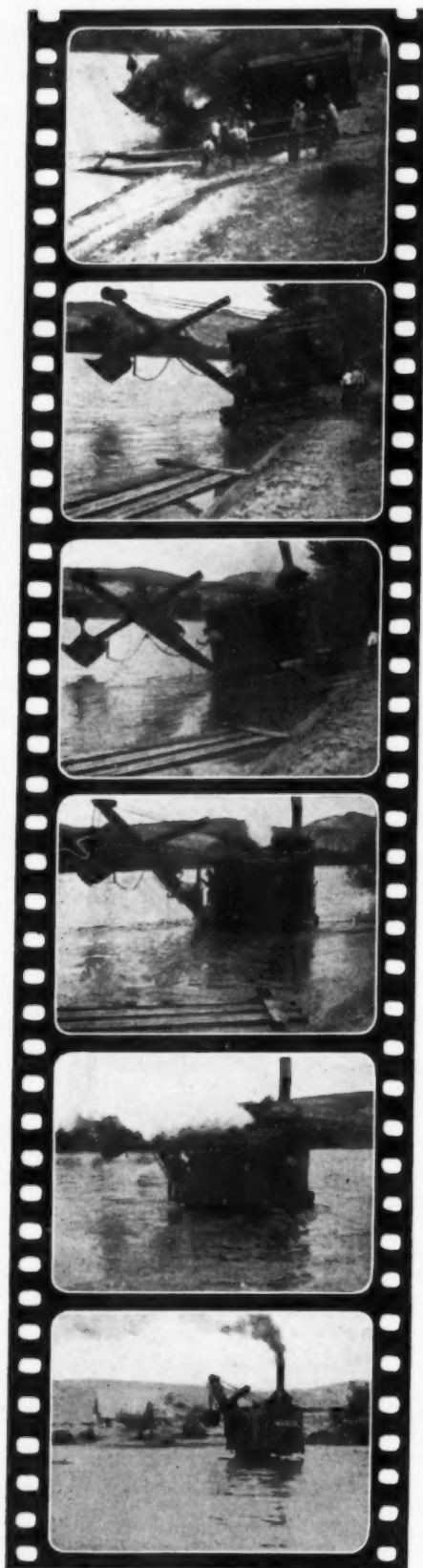
CRANES-SHOVELS CONVERTIBLE and DRAGLINES

*Gasoline-Diesel-Electric*

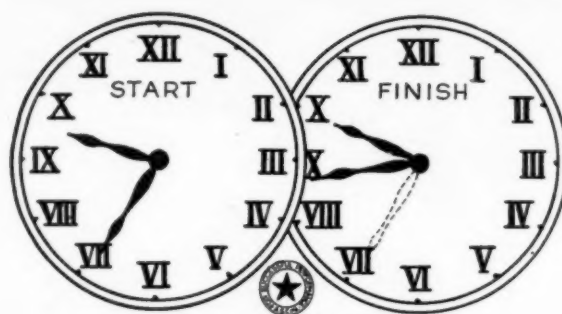
The most mobile power shovel on the market



MR12-38-RTG



# A MARION "21" "wades" the Okanogan River in less than 10 minutes



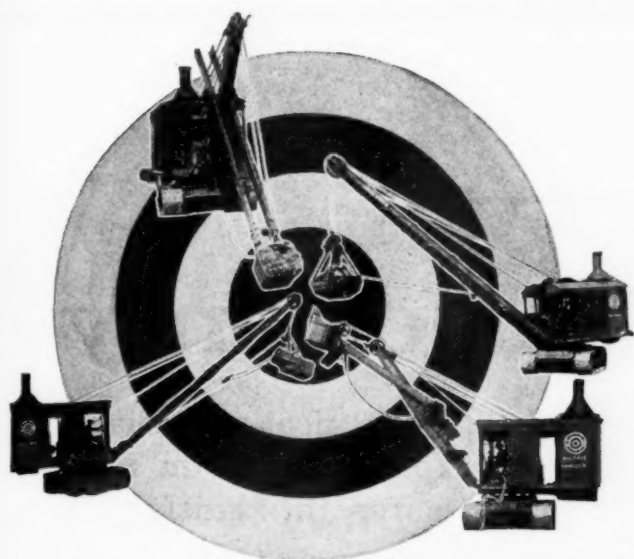
**N**o misplaced confidence in a Marion Excavator. Mr. Cheatham has had varied experiences with his Model 21 and he knew that he could depend on it to cross the Okanogan River, but to have his shovel crawl down a 45° bank and ford a stream three and a half feet deep with a swift running current, in less than ten minutes, was a surprise to him. You, too, will be surprised by the unequalled working ability of this Model. Play safe—investigate the Marion Model 21

# MARION

THE MARION STEAM SHOVEL CO. MARION OHIO U.S.A.

# MARION





## They All Hit the Bull's-Eye

That is the record of the Bucyrus 20-B.

There are four Bucyrus 20-B's—Steam, Diesel, Electric and Gasoline.

Each one hits the bull's-eye seven times, as a Standard Shovel, High Lift Shovel, Extra High Lift Shovel, Dragline, Clamshell, Crane and Pile Driver. They are quickly and easily convertible.

There are 28 possible combinations in all, and every one a bull's-eye.

The Bucyrus 20-B can be powered and equipped to hit the bull's-eye on any job for a small revolving shovel.

Shall we send you the Bucyrus 20-B bulletins?

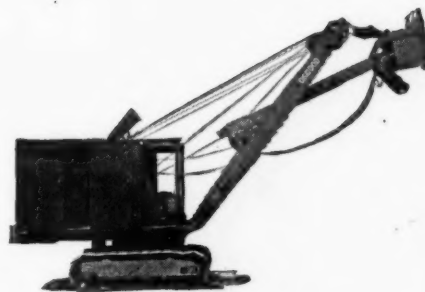
C-201-M—Steam  
B-201-M—Diesel  
E-201-M—Electric  
F-201-M—Gasoline

**BUCYRUS COMPANY**  
South Milwaukee      Wisconsin

# BUCYRUS

NEW YORK    CHICAGO    BIRMINGHAM    SAN FRANCISCO  
PITTSBURGH    TOKYO    LONDON

# OSGOOD

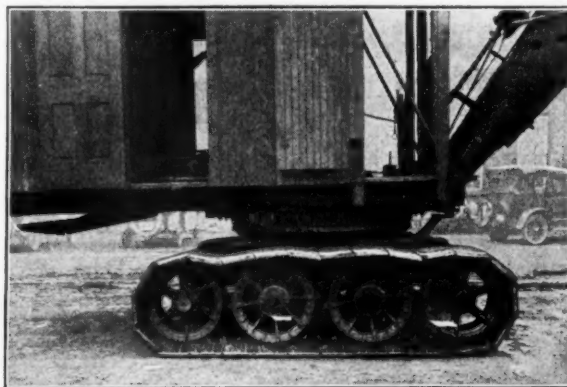


**Shovels, Clamshells,  
Cranes, Draglines.**

**Steam, Gas, Electric, Oil.**

**Revolving & R. R. Types  
on Continuous Treads or  
Traction Wheels.**

**THE OSGOOD COMPANY**  
MARION, OHIO, U.S.A.



## Good News for Shovel Users

Ever since Thew  $\frac{1}{2}$  and  $\frac{3}{4}$  yard shovels have been equipped with Center Drive Trucks, there has been a clamor from Thew one yard shovel owners for Center Drives too.

Of course, it took time to make the change, but now it is done. Thew A-1 one yard shovels can now climb, steer and travel like Thew Type O shovels.

"And that's going some," if you will take the word of every man who has bought a Thew Center Drive this year.

If you own a Thew A-1, you don't have to buy a new shovel to get a Center Drive Truck. Yours can be equipped very easily. Ask us about it.

If you are in the market for a new one yard shovel, see a Center Drive perform before you buy. It will pay you.

**THE THEW SHOVEL CO.**  
LORAIN, OHIO

## Thew Shovels

**Dig Faster—Last Longer**

# Safety— Certainty— Economy



*Du Pont chemical engineers insure uniformity of quality by chemical control through every step of manufacture from raw material to finished product.*

THE adoption of the efficient, economical and reliable method of using du Pont explosives and du Pont detonators is largely responsible for the satisfactory results attending blasting operations.

Du Pont blasting accessories cost but a trifle compared with the value of explosives and the loading costs. You eliminate waste of explosives, insure complete detonation and reduce your production costs when you use du Pont blasting accessories.

For safety, certainty and economy, instruct your blasting crews to fire du Pont explosives with du Pont blasting accessories, such as—

Blasting Caps	Electric Squibs
Delay Electric Blasting Caps	Fuse
Blasting Machines	Delay Electric Igniters
Galvanometers	Rheostats
Leading Wire	Cap Crimpers
Electric Blasting Caps	Tamping Bags

Write for Blasting Accessories Catalog containing descriptions and illustrations of du Pont accessories and practical information about their use.

E. I. DU PONT DE NEMOURS & CO., Inc.

*Explosives Department*  
WILMINGTON, DEL.



#### Branch Offices:

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San Francisco .. Calif.  
Scranton ..... Pa.  
Seattle ..... Wash.  
Spokane ..... Wash.  
Springfield ..... Ill.

*Dupont Products Exhibit*  
Atlantic City, N. J.

POWDER MAKERS SINCE 1802





## Oh! How it rained one Wednesday

**A**ND a contractor swore all day long, because he couldn't work his mixer. And he swore all day Thursday, because his grade was soft and slippery as a piece of soap after a hard Saturday night in the bath tub. He didn't dare to put a truck on it.

### On Friday, the

contractor started his mixer again. But starting his mixer didn't stop his swearing. His trucks had a 3 mile haul and spent most of their time pulling each other out of mud holes. The net result was 199 feet of 18-foot slab and 3 miles of torn up grade.

Saturday wasn't a whole lot better. The entire outfit seemed to be out of kilter. Need we note the net result: 270 lineal feet of concrete and 8 additional men working on grade.

So when the contractor happened across an advertisement like this one, it set him thinking.

### "If," said he

to himself, "I had had but a half mile haul last Wednesday, I could have drained off my grade

and dumped a couple loads of gravel in the soft spots.

"And I'll bet I could have had my mixer going by Thursday noon."

So he answered the advertisement. One week later, he received his copy of "Contracting with Barber-Greene." In it, he saw and read how other contractors were licking their material handling troubles.

And he said, "That's the system for me."

### On that Contractor's

next job it rained one Wednesday. And the contractor swore all day long, as per usual. But his materials were stored in stock piles that gave him an average grade haul of but half a mile.

Half a day of intensive draining fixed that half mile of grade for hauling. At one o'clock Thursday afternoon, his two new Barber-Greene's started loading batch trucks.

### By five o'clock,

the mixer had laid 201 feet of 18-foot slab. And the contractor, not only quit swearing, but actually went out and bought his wife a new wrist watch. When a fellow does that, it's a pretty good sign he's tickled to death.

*A Barber-Greene Loader working for a Pittsburgh contracting company.*

*Working from stock piles located at street intersections but short distances apart, this machine moved along the job under its own power.*

*And this system reduces hauling units to three three-batch trucks — each batch containing 18 cubic feet.*

*The latest Barber-Greene Road Book shows the material handling layouts that have been conspicuously successful during the past year. Your copy is waiting for you.*



BARBER-GREENE CO.

Representatives

560 W. Park Av., Aurora, Ill.

in Fifty Cities

**BARBER GREENE**

Portable Belt Conveyors

Self Feeding Bucket Loaders

Coal Loaders

Automatic

Ditch Diggers

Coal Feeders

# Warrenite-Bitulithic Pavement

*What do you want in a Road?*

Durability?  
Fine Appearance?  
Rugged Body?  
Smooth Surface?  
Shock Absorbing Quality?  
Long Life?  
Low Upkeep Cost?

Warrenite-Bitulithic Pavement has it  
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Warrenite-Bitulithic Pavement has it

*Why accept less for your money?*

## Warren Brothers Company

*A national organization to build good roads*

EXECUTIVE OFFICES:

9 Cambridge Street, Boston, Mass.

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Portland, Ore.  
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Los Angeles, Cal.  
New Orleans, La.  
Dallas, Texas  
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## Southern States Portland Cement



We produce only one grade

THE HIGHEST

ALWAYS UNIFORM

Southern States Portland Cement Co.

Office and Mills—ROCKMART, GA.

## National Cement Company

Manufacturers of

High Grade Portland Cement



QUALITY and  
SERVICE

Our Motto

Sales Department  
Empire Building - Birmingham, Ala.  
Plant  
Ragland - Alabama

# WARRIOR



# CEMENT

Actual service under the most exacting conditions is better proof of QUALITY.

It may be HEAVY Traffic, EXTREME Heat, SEVERE Cold, or action of Salt Water—"WARRIOR" stands the gaff.

Its light color makes it very desirable for residences, garages, and stucco work.

## Warrior Cement Corporation

Executive Offices:

CHATTANOOGA, TENNESSEE

Plant: SPOCARI, ALABAMA



## SAND

Bank Building Concrete Paving

### WASHED GRAVEL

In Car, Scow and Barge Lots

#### THE ARUNDEL CORPORATION

BALTIMORE, MD.

Office: PIER 2 PRATT STREET

Wharves: PIER 2 PRATT ST., AND FOOT OF CLINTON ST.

#### WOODSTOCK SLAG CORPORATION

807-8-9 Southern Railway Building  
BIRMINGHAM, ALA.

Screened and sized slag for all purposes, to meet Federal and State Aid Specifications.

Capacity 2,000 tons per day.

*Inquiries Solicited.*

#### WASHED and SCREENED SAND and GRAVEL

Conforming to Virginia and North Carolina Highway Commissions Specifications

PETERSBURG SAND & GRAVEL CORP.

DIXIE SAND & GRAVEL CORP.

Petersburg, Virginia

N. & W., A. C. L. and S. A. L. Connections

#### SAND—GRAVEL—BRICK FILTER GRAVEL

Washed Sand and Gravel for Concrete Roads and Buildings

Filter Gravel, all sizes—Building Bricks

FRIEND & CO., INC. - River St., Petersburg, Va.

#### SAND

CRUSHED STONE  
SAND CLAY GRAVEL  
SCREENINGS

#### GRAVEL

RIVERSIDE SAND & GRAVEL CORP'N.

120 West Plume Street, NORFOLK, VA.

Rail or Water Deliveries

Shipping Points—Petersburg Fredericksburg James River  
Norfolk and Boscobel, Va.

*For better Concrete*

**BASIC SLAG**  
CRUSHED & SCREENED

Birmingham Slag Co.  
Birmingham, Ala.

### EVERY THURSDAY

is the publication day of the MANUFACTURERS RECORD.  
Changes of copy must reach us eight days in advance,  
or fifteen days in advance if proofs are requested.

MANUFACTURERS RECORD



*Concrete for Permanence*



**SERVICE—QUALITY—COOPERATION**

Signal Mountain Portland Cement Co.  
CHATTANOOGA, TENNESSEE

Asphalt Filler  
Asphaltic Roadway Gravel  
Roofing Gravel



AMERICAN LIMESTONE COMPANY

McNutt Building  
KNOXVILLE, TENNESSEE

### CUMMER ASPHALT PLANTS

All Type and Sizes

THE F. D. CUMMER & SON CO.  
CLEVELAND, OHIO

*Amiesite*  
The Permanent Pavement

NORTH CAROLINA AMIESITE AND STONE CO.  
Hendersonville, North Carolina

### "ALBEROYD"

*The ideal asphalt filler dust*

Ground finer than other fillers. 80 to 90% passing 200 mesh screen. A more homogeneous and dense mix is secured by the use of this filler—making an unsurpassed wearing surface under heaviest traffic conditions. Output 200 tons daily. Immediate shipment. Sample upon request.

CHEMICALLY RIGHT

THE ALBEROYD CO. Esmont, Virginia

Crushed and Ground Alberene Stone.  
Manufacturers of Alberoyd Surfacers and Fillers.

29,939,000 square yards of concrete street  
pavement were laid in 1924

## Over 1000 Cities Laying Concrete Streets This Year

The reason for this nation-wide popularity of concrete street pavement is the fact that it is the finest looking pavement money can buy, and gives greater service value per dollar than any other type.

Our free booklet, "Concrete Streets  
for Your Town," will tell you the  
whole story. Ask for your copy

### PORTLAND CEMENT ASSOCIATION

*A National Organization to Improve and Extend the Uses of Concrete*

Atlanta	Columbus	Indianapolis	Minneapolis	Parkersburg	San Francisco
Birmingham	Dallas	Jacksonville	Nashville	Philadelphia	Seattle
Boston	Denver	Kansas City	New Orleans	Pittsburgh	St. Louis
Charlotte, N. C.	Des Moines	Los Angeles	New York	Portland, Ore.	Vancouver, B. C.
Chicago	Detroit	Milwaukee	Oklahoma City	Salt Lake City	Washington, D. C.



## ***Borden Mills Kingsport, Tenn.***



### **22,000 Barrels of CLINCHFIELD PORTLAND CEMENT**

Were used in building at Kingsport, Tenn., this big plant of the Borden Mills, a subsidiary of the American Print Works of Fall River, Mass.

This plant has 88,000 spindles and 1960 looms, and produces 80,000 yards of cotton cloth daily. It employs 875 men and women.

Concrete streets have also been laid throughout the plant grounds.



The Clinchfield Portland Cement Corporation welcomes the Borden Mills to Kingsport; and it is proud of the fact that its cement, made in Kingsport, has helped to build such substantial structures for this big and important addition to Kingsport's thriving industries.

Substantial businesses demand substantial buildings, and they insist on concrete because they know it is reliable and permanent.

### **Clinchfield Portland Cement Corporation** *Office and Mills: KINGSPORT, TENN.*

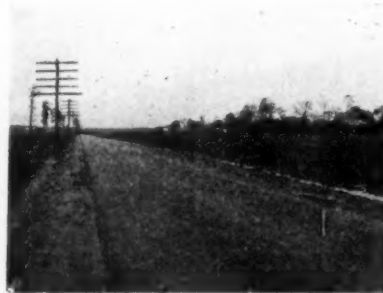
*Branch Sales Offices:*

1305 Union Trust Bldg., CINCINNATI, OHIO  
1511 Healey Bldg., ATLANTA, GA.





One of the Federal-Aid highways of Virginia in Campbell County—paved with TEXACO Asphalt Macadam.



Agricultural produce brought nearer to market by this TEXACO Asphaltic Concrete Highway in Coahoma County, Miss.



This street in Crowley, La., consists of four inches of TEXACO Asphaltic paving, 3" base and 1" top, on a cement concrete foundation.

## *Good Roads and Streets ~ One*

Pavement surfaces which retain their smoothness with years of service represent one of the principal needs of progressive communities.

That TEXACO Asphalt pavements are capable of rendering yeoman service under traffic and climatic conditions met in all parts of the South has been demonstrated since motor vehicles first made their appearance in numbers on our streets and highways. The original yardage of TEXACO Asphalt paving constructed in New Orleans, La., in 1906 still carries traffic.

# TEXACO



The Texas Company,  
17 Battery Place

New York  
Philadelphia  
Richmond

Boston  
Jacksonville  
New Orleans





Cedar Springs Road, Spartanburg, S. C.  
—a road of resilient TEXACO Asphalt.



Highway known as the Ozark Trail,  
Potter County, Texas—one of this  
State's TEXACO Asphalt roads.



Intersection of Linden Avenue and  
Summerville Street, Memphis, Tenn.,  
one of this city's durable TEXACO  
Asphalt streets.

## *of the South's Great Needs*

Because they are resilient, pavements of TEXACO respond to traffic impact in the most efficient manner possible—by absorbing it.

The rise and fall of the thermometer, which is the cause of anxiety with some forms of paving, gives the engineer who has specified TEXACO Asphalt no cause for worry.

Progressive communities with an eye to ultimate economy need just such pavements.

# ASPHALT

Asphalt Sales Dept.  
New York City



Chicago  
Cleveland  
Kansas City

Houston  
Dallas  
St. Louis



**ALEMITE  
GREASING  
- ON -  
BOSS  
MIXERS**

**\$172.00 BUYS 3S  
TRAILER COMPLETE  
WITH ENGINE**

**ONE BAG TILTER NOW AT HALF BAG PRICE**  
BETTER EQUIPMENT FOR LESS MONEY ON ACCOUNT  
BIG FACTORIES—VOLUME PRODUCTION—BUYING POWER

WRITE OR WIRE FOR NEW PRICES—CATALOGS—TODAY  
**THE AMERICAN CEMENT MACHINE CO., INC.**  
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BRANCH OFFICES AND WAREHOUSES IN ALL PRINCIPAL CITIES

MIXERS	HOISTS
55 - 75	SINGLE
105 - 145	AND DOUBLE
215 - 285	DRUM
GAS	REVERS-
STEAM	ING
ELECTRIC	\$135
ALLEY	UP
STREET	FORDSON
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**YEARS OF RELIABLE SERVICE  
SMITH 7-S NON-TILTER**

This mixer's record of dependable service makes it one of the most popular models, contractors everywhere agreeing that its speedy mixing and discharge action, easy handling and portability, and efficient operation and low maintenance cost, are features unequalled by any competitive mixer. Catalog on request.

**THE T. L. SMITH COMPANY**  
1035 32nd St., Milwaukee, Wis.  
Sales Offices and Service Stations in All Principal Cities



**A Quicker  
Concrete Mixer**

Send for literature.  
**THE STANDARD SCALE & SUPPLY CORP.,**  
1631 Liberty Avenue, Pittsburgh, Pa.  
Cleveland, Chicago, Philadelphia, New York.



**TRUCK LOADERS  
PORTABLE  
BELT CONVEYORS  
CLAM SHELL BUCKETS**

**The Geo. Haiss Manufacturing Co., Inc.**  
139th St. & Canal Place New York, N. Y.

**ROBINS 20-Ft. PORTABLE  
WITHOUT POWER, \$400.00  
F. O. B. PASSAIC, N. J.**

Write for full particulars.  
**ROBINS CONVEYING BELT CO.**  
New York-Chicago-Pittsburgh  
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## An "O. & S." On The Job

"When it comes to handling concrete", says Mr. Martley, foreman on the Parkville School (Balto.) job, "I haven't a kick to make." This "O. & S." mixer—having 3 years of usage and not a repair—showed from actual records 200 cu. yds. of concrete were poured in 3 days time, using 672 bags of cement. It is continuously on the job from morn till night, and all it needs is plenty of oil and gas.

These are some of the reasons why "O. & S." sales are steadily increasing.

Let us send you our catalog.

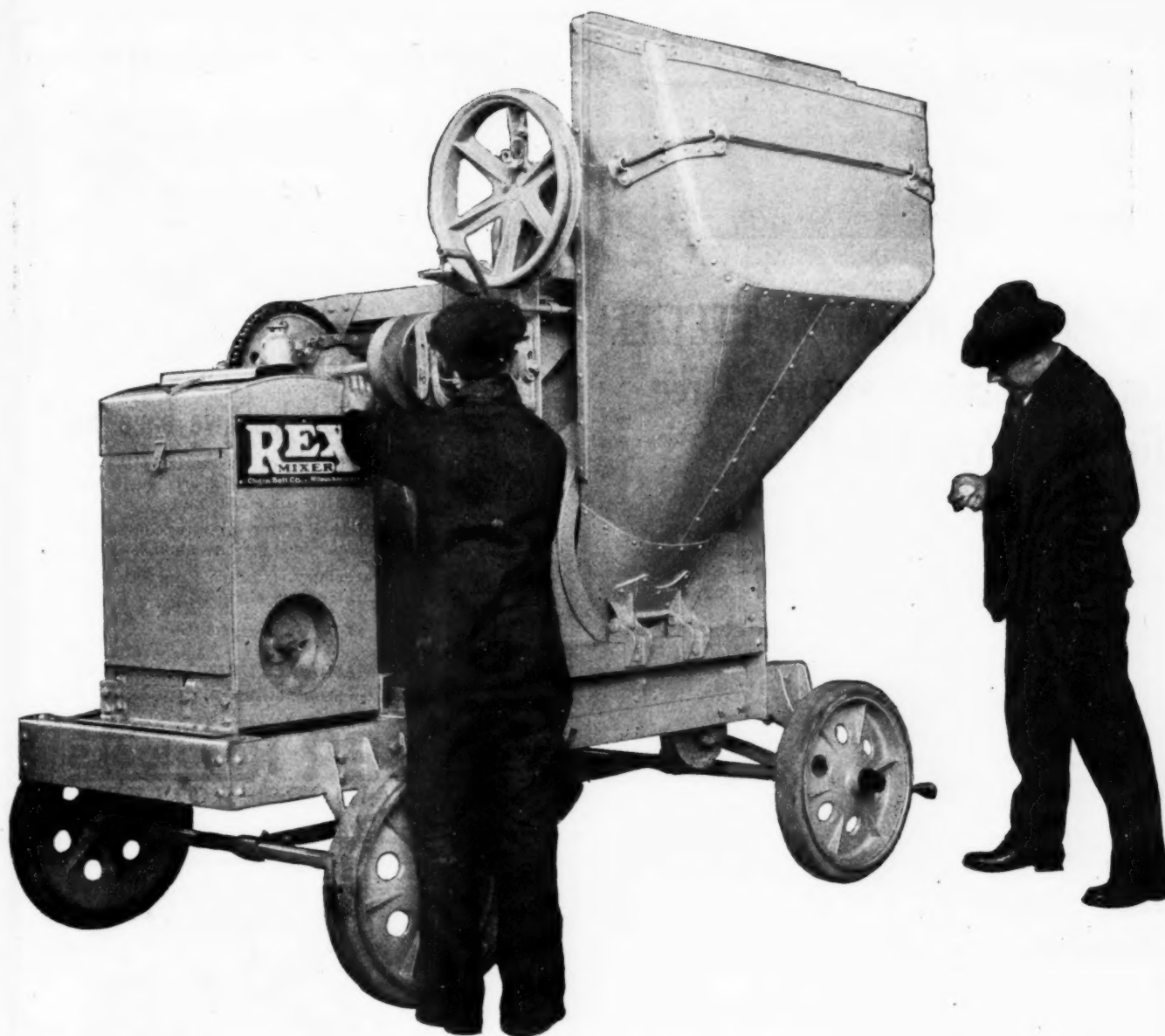


**ORR & SEMBOWER, Inc.**  
Established 1885  
**READING PENNA.**  
208 N. Clinton St., Chicago, Ill.

**Representatives**  
Asheville Supply & Fdry. Co.  
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General Supply & Equipment Co.  
Baltimore, Md.  
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Thomas Cox & Sons Machinery Co.  
Little Rock, Ark.

We are open for representatives at a number of points in the South and Southwest.





## 7 Seconds—More Yards per Day

Seven seconds and the skip of the Rex 237-S is raised to dumping height. This is the first reason for the exceptionally fast charging time of this full-bag machine. Stream lines, rounded corners and a wide throat help materials to slide from the skip rapidly. Big blades pull them through the big intake opening. With big buckets, a big discharge opening and a wide discharge chute to make discharging time equally fast, it is easy to see why the Rex 237-S has been turning out money-making yardages for

contractors all over the country. Each sixty seconds saved in charging and discharging time adds another batch to your daily run. Checking the coupon below will bring you details on the huskiness, the strength, the dependability of this model and of its husky little brother, the 235-S. Or, if you are interested in a fast half-bag tilter, check for the Tilter Catalog.

# REX MIXERS

CHAIN BELT COMPANY

735 Park Street

Milwaukee, Wisconsin

CHAIN BELT COMPANY  
735 Park Street, Milwaukee, Wisconsin

Please send me—The REX Tilter Catalog ☐  
The REX Mixer Catalog ☐

Name .....

Address .....

City..... State.....



## "Wouldn't Be Without My 'HELTZEL' Curb and Gutter Forms for Three Times the Price I Paid"

—F. H. MAJOR, CLIFTON FORGE, VA.

### Other HELTZEL Products

Road Forms  
Sidewalk Forms  
Integral Curb and  
Base Forms  
Batch Boxes  
Tool Boxes  
Batcher Plants  
Rotary Floats  
Car Unloaders  
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Subgraders  
Subgrade Testers  
Bulkheads  
Steel Bins  
Sewer Forms  
Catch Basin Forms  
Concrete Pipe Forms  
Culvert Forms  
Column Forms, etc.

Contractors and engineers prefer HELTZEL Forms because consistently they give a better job, with less time and cost in form setting.

Mid-State Construction Co. of Hastings, Nebraska, write that *they were in for a loss with wood forms and HELTZEL Forms turned it into profit.*

O. T. Roehl, of Knoxville, Tennessee, states, "We can recommend HELTZEL Forms very highly."

Hedrick Construction Company of Salisbury, N. C., write, "Two men set 1000 feet or strip 3000 to 4000 feet of curb and gutter forms per day."

John E. Bretz, of Springfield, Illinois, says, "HELTZEL Forms were my best investment in my 35 years in the paving business."

HELTZEL Curb-and-Gutter Forms are suspended on four stakes—are instantly lined to grade—cannot spread in any way—are made so face rail cannot creep up—are set in a jiffy—permit the removal of any template without disturbing the side rails—give clearance under the overhead rail for the use of a trowel.

Mail that coupon today for further facts on the most efficient contractors' equipment manufactured today.

The Heltzel Steel Form & Iron Co., Warren, Ohio

# HELTZEL

Heltzel Steel Form & Iron Co., Warren, Ohio

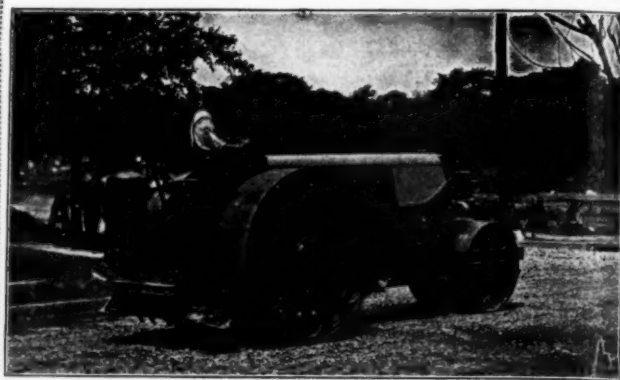
Mail me information on the following:

Steel Road Forms.....Sidewalk Forms.....

Curb and Gutter Forms.....Batch Boxes.....

Name .....

Address .....



## "Wish them same luck we have had"

"It is a pleasure to tell of the satisfaction we have received thru using the Huber Gas Roller. It is an excellent piece of equipment.

"We recommend this roller to any contractor and wish them same luck we have had."

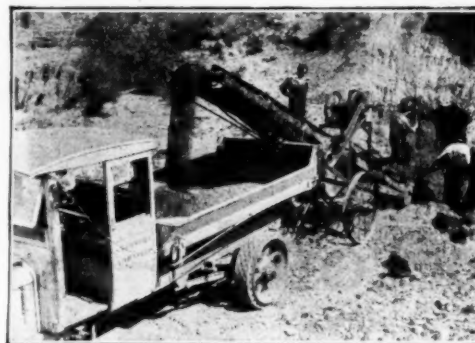
(Signed) Waterbury, (Conn.) Concrete Construction Co.

Write us for full information.

THE HUBER MANUFACTURING COMPANY  
136 Center Street, MARION, OHIO

## HUBER ROADTOOLS

MAINTAINERS - ROLLERS



## The Austin-Western Line

"It Serves You Right"

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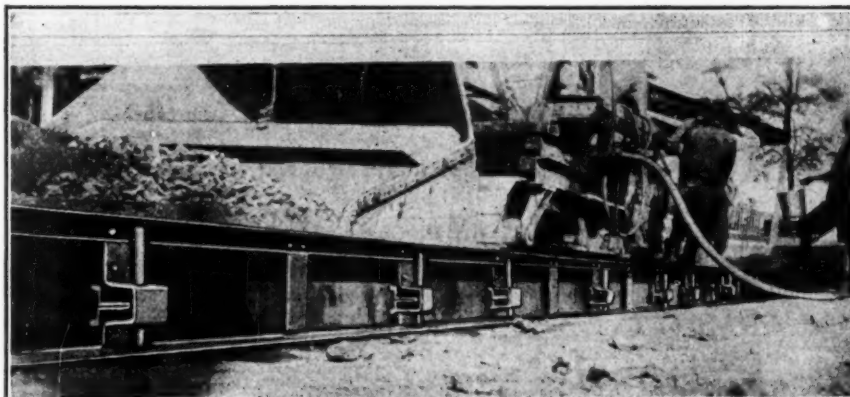
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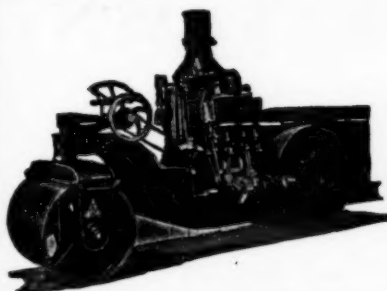
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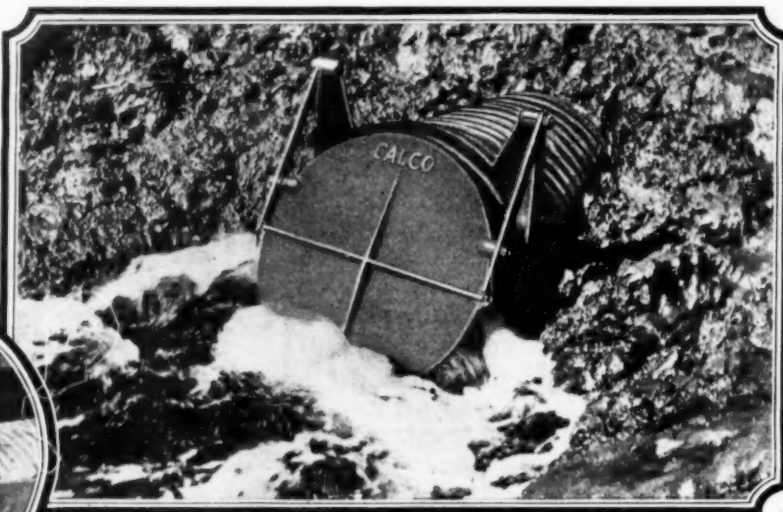
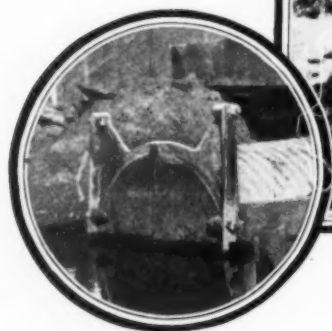
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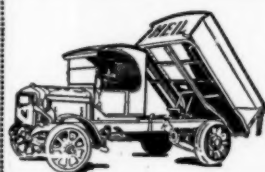
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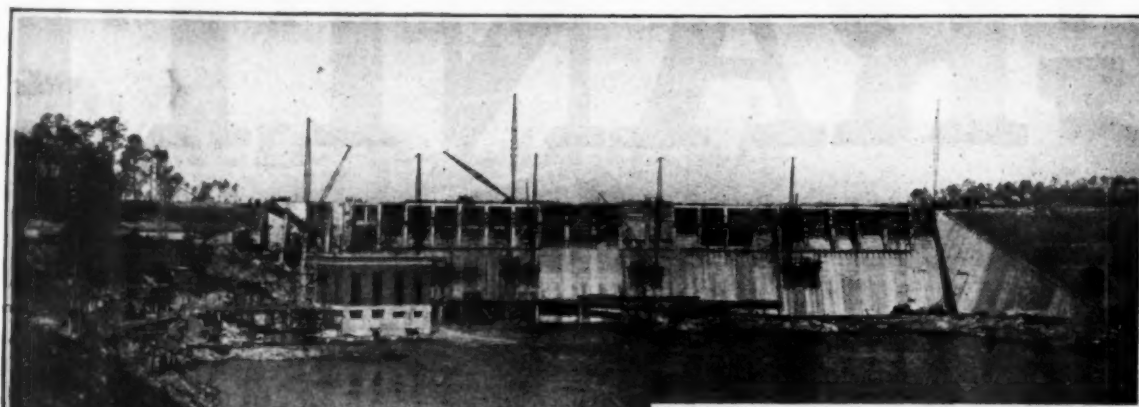
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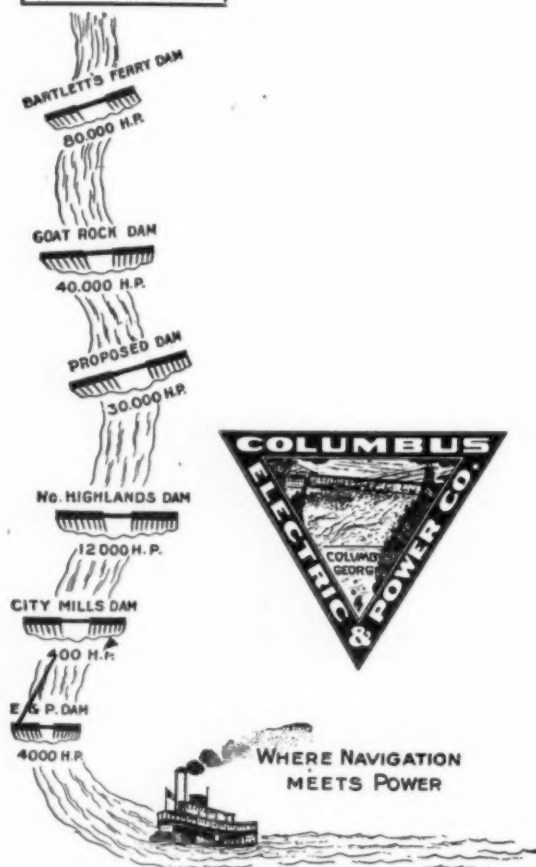
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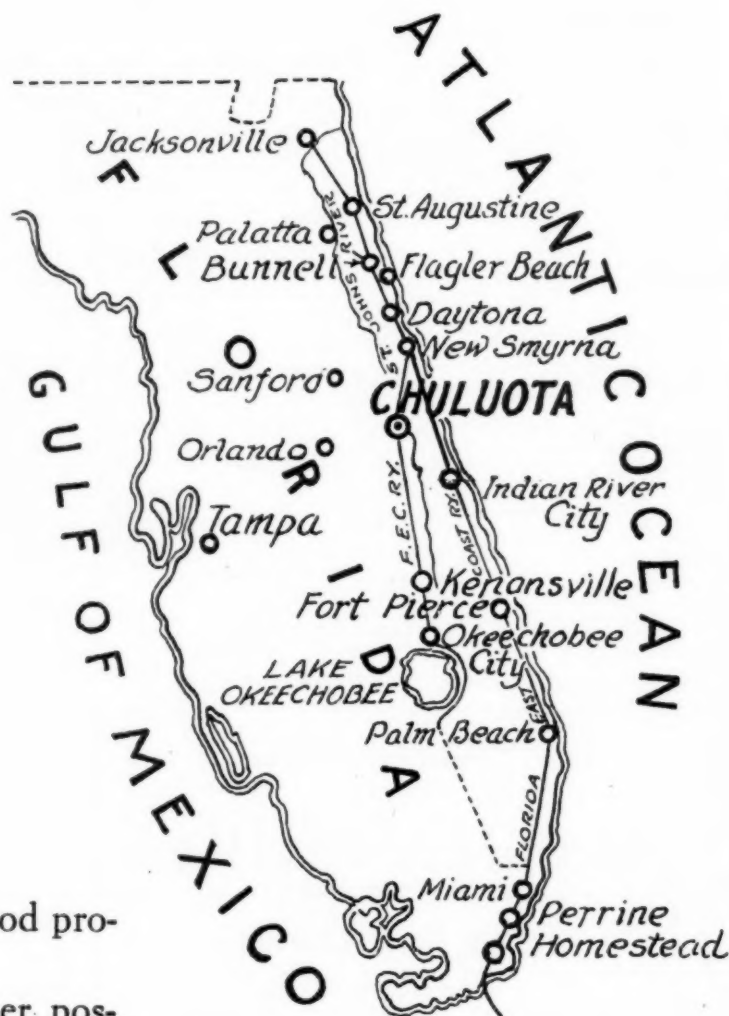
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Barber-Colman Co., Rockford, Ill.

## AUTOMOBILE ACCESSORIES.

Baltimore Gas Light Co., Balto. Md.

## AUTOMOBILE TIRES.

U. S. Rubber Co., New York, N. Y.

## AUTOMOBILE TRUCKS.

Ford Motor Co., Detroit, Mich.  
General Motors Truck Co., Pontiac, Mich.  
International Harvester Co. of America, Inc., Chicago, Ill.

## BACKFILLERS.

American Cement Machine Co., Inc., Keokuk, Iowa.  
Harnischfeger Corp., Milwaukee, Wis.  
Parsons Co., The, Newton, Iowa.

## BALLAST. (Railroad.)

American Limestone Co., Knoxville, Tenn.  
Birmingham Slag Co., Birmingham, Ala.

## BANKERS AND BROKERS.

Adair Realty & Trust Co., Atlanta, Ga.  
Allyn & Co., A. C., Chicago, Ill.  
Burr & Co., George H., New York.  
Caldwell & Co., Nashville, Tenn.

## BANKS.

Bank of Alabama, The, Ensley, Ala.  
Bank of New York & Trust Co., N. Y.  
First National Bank, Richmond, Va.  
Fourth National Bank, Macon, Ga.  
Maryland Trust Co., Baltimore, Md.

## BARGES. (Steel.)

American Bridge Co., New York, N. Y.

## BAR BENDERS.

Koehring Co., Milwaukee, Wis.

## BAR CUTTERS.

Koehring Co., Milwaukee, Wis.

## BARGES. (Steel.)

Midland Barge Co., Midland, Pa.

## BAR IRON. (Refined and Galvanized.)

Republic Iron & Steel Co., Youngstown, O.

## BARS. (Steel, Rounds, Flats, Hexagon and Squares.)

Carnegie Steel Co., Pittsburgh, Pa.  
Concrete Steel Co., New York, N. Y.

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Carnegie Steel Co., Pittsburgh, Pa.  
Concrete Steel Co., New York, N. Y.

De Cou Co., Richard, Philadelphia, Pa.  
Gulf States Steel Co., Birmingham, Ala.  
Knoxville Iron Co., Knoxville, Tenn.

## DE COU CO., RICHARD, PHILADELPHIA, PA.

Gulf States Steel Co., Birmingham, Ala.

## KNOXVILLE IRON CO., KNOXVILLE, TENN.

Laclede Steel Co., St. Louis, Mo.  
Byerson & Son, Inc., Jos. T., St. Louis and New York.

## TENNESSEE COAL, IRON & RAILROAD CO., BIRMINGHAM, ALA.

Virginia Bridge & Iron Co., Roanoke, Va.  
West Virginia Rail Co., Huntington, W. Va.

## BARS, WIRE, WIRE FABRIC, STEEL, ETC. (For Reinforced Concrete.)

Concrete Steel Co., New York, N. Y.  
Jones & Laughlin Steel Corp., Pittsburgh.

## NATIONAL STEEL FABRIC CO., PITTSBURGH, PA.

Oliver Iron & Steel Corp., Pittsburgh, Pa.  
Byerson & Son, Inc., Jos. T., St. Louis and New York.

## SOUTHERN STEEL PRODUCTS CO., RICHMOND, VA.

Trucon Steel Co., Youngstown, O.  
West Virginia Rail Co., Huntington, W. Va.

## WRENN & CO., O. Z., CHARLOTTE, N. C.

## BATTERIES. (Storage.)

Electric Storage Battery Co., Phila., Pa.  
Prest-O-Lite Co., Inc., The, New York.

## BEAMS, CHANNELS AND ANGLES.

Belmont Iron Works, Philadelphia, Pa.  
Carnegie Steel Co., Pittsburgh, Pa.

## TENNESSEE COAL, IRON & RAILROAD CO., BIRMINGHAM, ALA.

Virginia Bridge & Iron Co., Roanoke, Va.

## BEARINGS. (Ball.)

Marlin-Rockwell Corp., Jamestown, N. Y.

## BEARINGS. (Line Shaft.)

Wood's Sons Co., T. B., Chambersburg, Pa.

## BEARINGS. (Roller.)

Hyatt Roller Bearing Co., Newark, N. J.

## BELT CEMENT.

Reed & Duecker, Memphis, Tenn.  
Schieren Co., Chas. A., New York.

## BELT CONVEYORS.

Barber-Greene Co., Aurora, Ill.  
Hais Mfg. Co., Inc., Geo., New York.

## LINK-BELT CO., PHILADELPHIA, PA.

Robins Conveying Belt Co., New York.  
Webster Mfg. Co., The, Chicago, Ill.

## BELT DRESSING.

Dixon Crucible Co., Jos., Jersey City, N. J.  
Goodrich Rubber Co., The B. F., Akron, O.

## REED & DUECKER, MEMPHIS, TENN.

Schieren Co., Chas. A., New York.

## BELTING. (Chain.)

Chain Belt Co., Milwaukee, Wis.  
Link-Belt Co., Philadelphia, Pa.

## MORSE CHAIN CO., ITHACA, N. Y.

Goodrich Rubber Co., The B. F., Akron, O.  
New York Belting & Packing Co., New York, N. Y.

## BELTING. (Leather, Canvas, Rubber.)

Baltimore Belting Co., Baltimore, Md.  
Cheapeake Belting Co., Baltimore, Md.

## DRUID OAK BELTING CO., INC., BALTO., MD.

Goodrich Rubber Co., The B. F., Akron, O.  
New York Belting & Packing Co., New York, N. Y.

## REED & DUECKER, MEMPHIS, TENN.

Schieren Co., Chas. A., New York.  
U. S. Rubber Co., New York, N. Y.

## BELT LACING.

Schieren Co., Chas. A., New York.

## BILLETS. (Basic Open Hearth.)

Sharon Steel Hoop Co., Sharon, Pa.  
Tennessee Coal, Iron & Railroad Co., Birmingham, Ala.

## BINS. (Steel.)

Lupton's Sons Co., David, Phila., Pa.

## BIRD'S-EYE VIEWS.

Ness, Joseph, Atlanta, Ga.  
Shutting, R. J., Chattanooga, Tenn.

## BLAST-FURNACE LININGS.

Ashland Fire Brick Co., Ashland, Ky.

## BLASTING ACCESSORIES.

Du Pont de Nemours & Co., Inc., E. I., Wilmington, Del.

## BLASTING POWDER.

Du Pont de Nemours & Co., Inc., E. I., Wilmington, Del.

## BLINDS. (Venetian and Awning.)

Swedish Venetian Blind Co., New York.  
Wilson Corp., The, J. G., New York.

## BLOCK FILLERS. (Paving.)

Barber Asphalt Co., Philadelphia, Pa.  
Texas Co., The, New York, N. Y.

## BLOCKS. (Chain.)

Ford Chain Block Co., Philadelphia, Pa.  
Wright Mfg. Co., Lisbon, O.

## YALE & TOWNE MFG. CO., STAMFORD, CONN.

Yale & Towne Mfg. Co., Stamford, Conn.

Yale & Towne Mfg. Co., Stamford, Conn.

BLOCKS. (Paving, Cressed.)  
American Cressed Works, Inc., New Orleans, La.

## GULF STATES CRESSING CO., HATTIESBURG, MISS.

Long-Bell Lumber Co., Kansas City, Mo.

## BLOCKS. (Wire Rope.)

Construction Specialties Co., Inc., Long Island City, N. Y.

## BLOWERS AND EXHAUST FANS.

Kirk & Blum Mfg. Co., The, Cincinnati, O.  
National Blow Pipe & Mfg. Co., Ltd., New Orleans, La.

Sterling Blower Co., Hartford, Conn.  
Sturtevant Co., B. F., Hyde Park, Boston, Mass.

## BLOWERS. (Turbine.)

Ingersoll-Rand Co., New York, N. Y.

## BLOW PIPE SYSTEMS.

Atlanta Blow Pipe Co., Atlanta, Ga.  
Kirk & Blum Mfg. Co., The, Cincinnati, O.

National Blow Pipe & Mfg. Co., Ltd., New Orleans, La.  
Skinner Bros Mfg. Co., Inc., St. Louis, Mo.

## STERLING BLOWER CO., HARTFORD, CONN.

Boats, Steel. (Wharf and Tow.)  
Midland Barge Co., Midland, Pa.

## BOATS. (Tugs and Barges.)

Pusey & Jones Co., The, Wilmington, Del.

## BODIES. (Automatic Dump.)

Hell Co., The, Milwaukee, Wis.  
Wood Hydraulic Hoist & Body Co., Detroit, Mich.

## BODIES. (Dump Truck.)

Hydraulic Hoist Mfg. Co., St. Paul, Minn.  
Weldmech Co., Inc., The, Hattiesburg, Miss.

## BODIES. (Tank.)

Weldmech Co., Inc., The, Hattiesburg, Miss.

## BOILER COATING. (Insulating.)

Robertson Co., H. H., Pittsburgh, Pa.

## BOILER GRAPHITE.

Dixon Crucible Co., Jos., Jersey City, N. J.

## BOILERS. (Locomotive.)

Orr & Sombower, Inc., Reading, Pa.

## BOILERS. (New.)

Abendroth & Root Mfg. Co., New York.  
Babcock & Wilcox Co., The, New York.

Brownell Co., The, Dayton, Ohio.  
Casey-Hodges Co., Chattanooga, Tenn.  
Charleston Dry Dock & Machine Co., Charleston, S. C.

## CHATTANOOGA BOILER & TANK CO., CHATTANOOGA, TENN.

Cole Mfg. Co., E. D., Newman, Ga.  
Erie City Iron Works, Erie, Pa.

Hamburg Boiler Works, Inc., Hamburg, Berks County, Pa.  
Hartley Boiler Works, Montgomery, Ala.

Heine Boiler Co., Inc., St. Louis, Mo.  
Lombard Iron Works & Supply Co., Augusta, Ga.

Murray Iron Works Co., Burlington, Ia.  
Orr & Sombower, Inc., Reading, Pa.

- BUTT & Co.**, George H., New York.  
**Caldwell & Co.**, Nashville, Tenn.  
**Curtis & Sanger**, New York, N. Y.  
**Dickson & Co.**, R. S., Gastonia, N. C.  
**Busins & Co.**, M. W., Little Rock, Ark.  
**Syer & Co.**, New York, N. Y.  
**Hanchett Bond Co., Inc.**, The, Chicago, Ill.  
**Marx & Co.**, Birmingham, Ala.  
**Mercantile Trust & Deposit Co.**, Balto., Md.  
**Miller & Co., Inc.**, G. L., Atlanta, Ga.  
**Nuven & Co.**, John, Chicago, Ill.  
**Provident Savings Bank & Trust Co.**, Cincinnati, Ohio.  
**Well, Roth & Irving Co.**, Cincinnati, O.  
**Williams, Jr., & Co.**, Roger B., New York.
- BONDED FLOORS.**  
**Bonded Floors Co., Inc.**, Philadelphia, Pa.
- BONDS.**  
**Adair Realty & Trust Co.**, Atlanta, Ga.  
**Eyer & Co.**, New York, N. Y.  
**Miller & Co., Inc.**, G. L., Atlanta, Ga.
- BORINGS. (Core.)**  
**Sprague & Henwood, Inc.**, Scranton, Pa.
- BOXES. (Steel Shop.)**  
**Mullins Body Corp.**, Salem, Ohio.
- BRASS GOODS.**  
**Copper & Brass Research Assn.**, New York City.  
**Lunkemheimer Co.**, The, Cincinnati, O.  
**Mueller Co.**, Decatur, Ill.  
**Powell Co.**, The, William, Cincinnati, O.
- BRICK. (Common Building.)**  
**Friend & Co., Inc.**, Petersburg, Va.  
**Georgia-Carolina Brick Co.**, Augusta, Ga.  
**Kingsport Brick Corp.**, Kingsport, Tenn.  
**Standard Brick & Tile Co.**, Macon, Ga.
- BRICK. (Enamelled.)**  
**American Enamelled Brick & Tile Co.**, New York.
- BRICK. (Face.)**  
**Alabama Clay Products Co.**, Birmingham, Ala.  
**American Enamelled Brick & Tile Co.**, New York.  
**Birmingham Clay Products Co.**, Birmingham, Ala.  
**Kingsport Brick Corp.**, Kingsport, Tenn.  
**Standard Brick & Tile Co.**, Macon, Ga.  
**Thornton Fire Brick Co.**, Clarkburg, W. Va.  
**West Virginia Brick Co.**, Charleston, W. Va.
- BRICK. (Facing.)**  
**National Paving Brick Mfrs. Association.**, Cleveland, Ohio.  
**Thornton Fire Brick Co.**, Clarkburg, W. Va.
- BRICK. (Pressed Dry.)**  
**Georgia-Carolina Brick Co.**, Augusta, Ga.
- BRICK AND CLAYWORKING MACHINERY AND SUPPLIES.**  
**Fernholm Brick Machinery Co.**, The, St. Louis, Mo.  
**Freese & Co.**, E. M., Gallon, O.  
**Hadfield-Pendell Steel Co.**, Bucyrus, O.  
**Steele & Sons, J. C.**, Statesville, N. C.
- BRIDGE AND STRUCTURAL IRON PAINTS.**  
**Chattanooga Paint Co.**, Chattanooga, Tenn.
- BRIDGE CONTRACTORS.**  
**Pittsburgh-Des Moines Steel Co.**, Pittsburgh, Pa.
- BRIDGE TIMBER.**  
**American Crenating Co., Inc.**, Louisville, Ky.
- BRIDGES. (Concrete.)**  
**Joliet Bridge Co.**, The, Burlington, N. C.  
**Robinson & Co., Inc.**, Dwight F., New York, N. Y.
- BRIDGES. (Steel.)**  
**American Bridge Co.**, New York, N. Y.  
**Belmont Iron Works.**, Philadelphia, Pa.  
**Champion Bridge Co.**, Wilmington, O.  
**Chesapeake Iron Works.**, Baltimore, Md.  
**Converse Bridge & Steel Co.**, Chattanooga, Tenn.  
**Granger & Co., Inc.**, Louisville, Ky.  
**Joliet Bridge Co.**, The, Burlington, N. C.  
**McClintic-Marshall Co.**, Pittsburgh, Pa.  
**Richmond Structural Steel Co.**, Richmond, Va.  
**Virginia Bridge & Iron Co.**, Roanoke, Va.
- BRONZE. (Machine.)**  
**Moccasin Bushing Co.**, Chattanooga, Tenn.
- BRUSHES. (Machine.)**  
**Mason Brush Works.**, Worcester, Mass.
- BRUSHES. (Textile Mill.)**  
**Mason Brush Works.**, Worcester, Mass.
- SUBBLERS.**  
**Rundie-Spence Mfg. Co.**, Milwaukee, Wis.
- BUCKETS. (Clam Shell.)**  
**Blaw-Knox Co.**, Pittsburgh, Pa.  
**Brown Hoisting Machinery Co.**, Cleveland, Ohio.  
**Halse Mfg. Co., Inc.**, Geo., New York, N. Y.  
**Hayward Co.**, The, New York, N. Y.  
**Industrial Works.**, Bay City, Mich.  
**McMyler-Interstate Co.**, The, Cleveland, O.  
**Mead-Morrison Mfg. Co.**, East Boston, Mass.  
**Orton & Steinbrenner Co.**, Chicago, Ill.  
**Owen Bucket Co.**, The, Cleveland, Ohio.
- BUCKETS. (Dredging, Excavating, Sewer, etc.)**  
**Hayward Co.**, The, New York, N. Y.  
**Monaghan Machine Co.**, Chicago, Ill.  
**Owen Bucket Co.**, The, Cleveland, Ohio.
- BUCKETS. (Grab.)**  
**Industrial Works.**, Bay City, Mich.
- BUCKETS. (Orange Peel.)**  
**Hayward Co.**, The, New York, N. Y.  
**Orton & Steinbrenner Co.**, Chicago, Ill.
- BUCKETS. (Ore Handling.)**  
**Hayward Co.**, The, New York, N. Y.  
**McMyler-Interstate Co.**, The, Cleveland, O.  
**Owen Bucket Co.**, The, Cleveland, Ohio.
- BUILDERS AND CONTRACTORS.**  
**Austin Co.**, The, Cleveland, Ohio.  
**Foundation Co.**, The, New York, N. Y.  
**Robinson & Co., Inc.**, Dwight F., New York, N. Y.  
**Shaw, Jos. S.**, Atlanta, Ga.  
**Stone & Webster, Inc.**, Boston, Mass.  
**U. G. I. Contracting Co.**, The, Phila., Pa.  
**White Engineering Corp.**, J. G., New York.
- BUILDERS MATERIALS AND SUPPLIES.**  
**Baker & Holmes Co.**, Jacksonville, Fla.  
**Carolina Portland Cement Co.**, Charleston, S. C.
- BUILDINGS. (Industrial.)**  
**Austin Co.**, The, Cleveland, Ohio.  
**Belmont Iron Works.**, Philadelphia, Pa.  
**McClintic-Marshall Co.**, Pittsburgh, Pa.  
**Maryland Metal Building Co.**, Balto., Md.  
**Virginia Bridge & Iron Co.**, Roanoke, Va.
- BUILDINGS. (Metal.)**  
**Birmingham Iron Roofing & Fencing Co.**, Birmingham, Ala.  
**Maryland Metal Building Co.**, Balto., Md.
- BUILDINGS. (Portable Steel.)**  
**Birmingham Iron Roofing & Fencing Co.**, Birmingham, Ala.  
**Blaw-Knox Co.**, Pittsburgh, Pa.  
**Maryland Metal Building Co.**, Balto., Md.
- BUILDINGS. (Pressed Steel.)**  
**Trucon Steel Co.**, Youngstown, O.
- BULLETINS. (Church & Commercial.)**  
**Walker & Son.**, Herbert T., Richmond, Va.
- BUS BAR.**  
**Baltimore Tube Co., Inc.**, Baltimore, Md.
- BUSHINGS. (Brass and Bronze.)**  
**Moccasin Bushing Co.**, Chattanooga, Tenn.
- BUSINESS METHODS.**  
**Ernst & Ernst.**, New York, N. Y.
- CABINETS. (Medicine.)**  
**Southern Mosaic Tile Co.**, Atlanta, Ga.
- CABLES. (Stud Link.)**  
**Woodhouse Chain Works.**, Trenton, N. J.
- CABLES AND WIRE. (Electric.)**  
**American Steel & Wire Co.**, Balto., Md.  
**Roebbing's Sons Co.**, John A., Trenton, N. J.
- CABLEWAYS. (Overhead Suspension.)**  
**Broderick & Bascom Rope Co.**, St. Louis, Mo.  
**Flory Mfg. Co.**, S., Bangor, N. Y.  
**Lidgerwood Mfg. Co.**, New York, N. Y.
- CALCIUM ARSENATE. (For Boll Weevil.)**  
**Ambruster, Howard W.**, New York, N. Y.
- CALCIUM CHLORIDE.**  
**Solvay Process Co.**, New York, N. Y.
- CAN AND BOX-MAKING MACHINERY. (Tin.)**  
**Bliss Co.**, E. W., Brooklyn, N. Y.
- CANNING MACHINERY AND SUPPLIES.**  
**Robins & Co.**, A. E., Baltimore, Md.
- CAR LOADERS AND UNLOADERS.**  
**Barber-Greene Co.**, Aurora, Ill.  
**Bonney Supply Co., Inc.**, Rochester, N. Y.  
**Byers Machine Co.**, The, Ravenna, O.  
**Halse Mfg. Co., Inc.**, Geo., New York, N. Y.  
**Universal Road Machinery Co.**, Kingston, N. Y.
- CARPETS.**  
**Leadom Co.**, Thomas L., Bristol, Pa.
- CAR PULLERS. (Electric.)**  
**Mead-Morrison Mfg. Co.**, East Boston, Mass.
- CARS. (Dump, Industrial, Logging and Mine.)**  
**Atlanta Loco. & Eng. Co.**, Atlanta, Ga.  
**Atlas Car & Mfg. Co.**, The, Cleveland, O.  
**Electric Wheel Co.**, Quincy, Ill.  
**Georgia Car & Loco. Co.**, Atlanta, Ga.  
**Koppel Industrial Car & Equipment Co.**, Koppel, Pa.  
**Sherwood, E. C.**, New York, N. Y.  
**Southern Iron & Equipment Co.**, Atlanta, Ga.  
**Western Wheeled Scraper Co.**, Aurora, Ill.
- CAR STEPS. (Safety.)**  
**Irving Iron Works Co.**, Long Island City, N. Y.
- CASTINGS. (Brass and Bronze.)**  
**Farr Co.**, The, Meridian, Miss.  
**Keystone Bronze Co.**, Pittsburgh, Pa.  
**Moccasin Bushing Co.**, Chattanooga, Tenn.  
**Pulaski Foundry & Mfg. Co.**, Cleveland, O.
- CASTINGS. (Copper.)**  
**Keystone Bronze Co.**, Pittsburgh, Pa.
- CASTINGS. (Gray Iron.)**  
**Columbian Iron Works.**, Chattanooga, Tenn.  
**Columbus Iron Works Co.**, Columbus, Ga.  
**Farr Co.**, The, Meridian, Miss.  
**Georgia Car & Loco. Co.**, Atlanta, Ga.  
**Gleason Pipe & Foundry Co.**, Lynchburg, Va.  
**Hammond Iron Co.**, Birmingham, Ala.  
**Janney & Co.**, Montgomery, Ala.  
**National Cast Iron Pipe Co.**, Birmingham, Ala.  
**Pulaski Foundry & Mfg. Co.**, Cleveland, O.  
**Roanoke Iron & Bridge Works, Inc.**, Roanoke, Va.  
**Standard Cast Iron Pipe & Foundry Co.**, Atlanta, Ga.  
**Thomas Grate Bar Co.**, Birmingham, Ala.  
**U. S. Cast Iron Pipe & Foundry Co.**, Burlington, N. J.
- CASTINGS. (Malleable Iron and Steel.)**  
**Mal-Gra Castings Co.**, Cambridge City Ind.  
**Marion Malleable Iron Works.**, Marion, Ind.
- CASTINGS. (Municipal.)**  
**Egyptian Iron Works.**, Murphysboro, Ill.
- CASTINGS. (Semi-Steel.)**  
**Farr Co.**, The, Meridian, Miss.  
**Salem Foundry & Machine Works.**, Salem, Va.  
**Vogt Brothers Mfg. Co., Inc.**, Louisville, Ky.
- CASTINGS. (Steel.)**  
**Bethlehem Steel Co.**, Bethlehem, Pa.  
**Crucible Steel Casting Co.**, Lansdowne, Pa.  
**Dodge Mfg. Corp.**, Mishawaka, Ind.  
**Pulaski Foundry & Mfg. Co.**, Cleveland, O.
- CEILINGS. (Metal.)**  
**Edwards Mfg. Co.**, The, Cincinnati, O.  
**Schoedinger, F. O.**, Columbus, O.
- CEMENT. (High Temperature.)**  
**Harbison-Walker Refractories Co.**, Pittsburgh, Pa.  
**Obermayer Co.**, The, S. C., Chicago, Ill.  
**Savage Mountain Fire Brick Co.**, Frostburg, Md.
- CEMENT. (Portland.)**  
**Alabama Portland Cement Co.**, Birmingham, Ala.  
**Carolina Portland Cement Co.**, Charleston, S. C.  
**Chinchfield Portland Cement Corp.**, Kingsport, Tenn.  
**Dixie Portland Cement Co.**, Chattanooga, Tenn.  
**National Cement Co.**, Birmingham, Ala.  
**Portland Cement Assn.**, Chicago, Ill.  
**Sigal Mountain Portland Cement Co.**, Chattanooga, Tenn.  
**Southern States Portland Cement Co.**, Rockmart, Ga.  
**Warrior Cement Corp.**, Chattanooga, Tenn.
- CEMENT COLORS.**  
**Sullivan Co.**, The, Memphis, Tenn.
- CEMENT GUN WORK.**  
**Cement-Gun Co., Inc.**, Allentown, Pa.  
**Cement Gun Construction Co.**, Chicago, Ill.
- CEMENT MACHINERY.**  
**Allis-Chalmers Mfg. Co.**, Milwaukee, Wis.  
**Smith & Co., F. L.**, New York, N. Y.
- CEMENT MIXING COMPOUND.**  
**Sullivan Co.**, The, Memphis, Tenn.
- CEMENT TILE.**  
**American Cement Tile Mfg. Co.**, Pittsburgh, Pa.
- CHAIN BLOCKS.**  
**Ford Chain Block Co.**, Philadelphia, Pa.  
**Harrington Co.**, The, Philadelphia, Pa.  
**Reading Chain & Block Corp.**, Reading, Pa.  
**Wright Mfg. Co.**, Lisbon, O.  
**Yale & Towne Mfg. Co.**, Stamford, Conn.
- CHAINS.**  
**Woodhouse Chain Works.**, Trenton, N. J.
- CHAINS. (Dredge, Quarry, Steam Shovel.)**  
**Knoxville Iron Co.**, Knoxville, Tenn.  
**Woodhouse Chain Works.**, Trenton, N. J.
- CHAINS. (Silent Drive.)**  
**Link-Belt Co.**, Philadelphia, Pa.  
**Morse Chain Co.**, Ithaca, N. Y.
- CHAINS. (Sprocket.)**  
**Link-Belt Co.**, Philadelphia, Pa.  
**Webster Mfg. Co.**, The, Chicago, Ill.
- CHAINS. (Welded Chains.)**  
**Woodhouse Chain Works.**, Trenton, N. J.
- CHAIRS. (Opera and Theatre.)**  
**Andrews Co., A. H.**, Chicago, Ill.  
**Southern Desk Co.**, The, Hickory, N. C.
- CHAIRS. (Reinforcing Bars.)**  
**Concrete Steel Co.**, New York, N. Y.
- CHASSIS.**  
**Ford Motor Co.**, Detroit, Mich.
- CHEMICAL PLANT EQUIPMENT.**  
**Standard Cast Iron Pipe & Foundry Co.**, Atlanta, Ga.
- CHEMICALS.**  
**Davidson Chemical Co.**, The, Baltimore, Md.
- CHEMICAL TOILETS.**  
**Chemical Toilet Corp.**, Syracuse, N. Y.  
**Kaustine Co., Inc.**, Buffalo, N. Y.
- CHEMISTS, CHEMICAL ENGINEERS. (Analytical.)**  
**Froehling & Robertson, Inc.**, Richmond, Va.  
**Hunt Co., Robert W.**, Chicago, Ill.  
**Laverie & Sons, Inc.**, R. H., New York, N. Y.  
**Parker Laboratory.**, Charleston, S. C.  
**Picard Laboratories.**, The, Birmingham, Ala.  
**Pittsburgh Testing Lab.**, Pittsburgh, Pa.  
**Snell, Foster D.**, Brooklyn, N. Y.  
**Southern Testing Laboratories, Inc.**, Birmingham, Ala.  
**Southwestern Laboratories.**, Fort Worth, Tex.  
**Stillman & Van Sieten, Inc.**, New York, N. Y.  
**Wiley & Co., Inc.**, Baltimore, Md.
- CHEMISTS, CHEMICAL ENGINEERS. (Asphalt.)**  
**Parker Laboratory.**, Charleston, S. C.  
**Stillman & Van Sieten, Inc.**, New York, N. Y.
- CHEMISTS, CHEMICAL ENGINEERS. (Cement, Portland.)**  
**Froehling & Robertson, Inc.**, Richmond, Va.  
**Hunt Co., Robert W.**, Chicago, Ill.  
**Laverie & Sons, Inc.**, R. H., New York, N. Y.  
**Parker Laboratory.**, Charleston, S. C.  
**Picard Laboratories.**, The, Birmingham, Ala.  
**Pittsburgh Testing Lab.**, Pittsburgh, Pa.  
**Southern Testing Laboratories, Inc.**, Birmingham, Ala.  
**Southwestern Laboratories.**, Fort Worth, Tex.  
**Stillman & Van Sieten, Inc.**, New York, N. Y.  
**Wiley & Co., Inc.**, Baltimore, Md.
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National Elec. Light Assn., New York.

**ELEVATOR BUCKETS.**

Hendrick Mfg. Co., Carbondale, Pa.

Mullins Body Corp., Salem, Ohio.

**ELEVATOR CABLES.**

Leechen & Sons Rope Co., A., St. Louis, Mo.

**ELEVATOR ENCLOSURES.**

Dahlstrom Metallic Door Co., Jamestown, N. Y.

Dufur & Co., Baltimore, Md.

Dufur, Baggott & Co., Baltimore, Md.

**ELEVATORS. (Concrete and Building Material.)**

Insley Mfg. Co., Indianapolis, Ind.

**ELEVATORS. (Electric.)**

American Elevator & Machine Co., Inc., Louisville, Ky.

Modtatt Machinery Mfg. Co., Charlotte, N. C.

Warsaw Elevator Co., Baltimore, Md.

**ELEVATORS. (Hand and Belt Power.)**

American Elevator & Machine Co., Inc., Louisville, Ky.

Modtatt Machinery Mfg. Co., Charlotte, N. C.

Warsaw Elevator Co., Baltimore, Md.

**ELEVATORS. (Hydraulic.)**

American Elevator & Machine Co., Inc., Louisville, Ky.

Modtatt Machinery Mfg. Co., Charlotte, N. C.

Warsaw Elevator Co., Baltimore, Md.

**ELEVATORS. (Steam Hydraulic.)**

Ridgway & Son Co., The, Coatesville, Pa.

**ENGINEERS. (Agricultural.)**

Baxter Engineering Co., Little Rock, Ark.

**ENGINEERS. (Alkali.)**

Mount, W. D., Lynchburg, Va.

**ENGINEERS. (Appraisal.)**

American Appraisal Co., Milwaukee, Wis.

Austin Co., The, Cleveland, Ohio.

Baird & Scriber, Lakeland, Fla.

Batley & Kipp, Inc., Chicago, Ill.

Booker Warren H., Charlotte, N. C.

Cornell-Mathews Co., Orlando, Fla.

Day & Zimmermann, Inc., Phila., Pa.

Fay, Spofford & Thorndike, Boston, Mass.

Ford, Bacon & Davis, Inc., New York.

Harper & Taylor, Inc., Philadelphia, Pa.

Ludlow Engineers, Winston-Salem, N. C.

Marsel Co., The, Atlanta, Ga.

Maur & Gordon, Chicago, Ill.

Page Engineering Co., Orlando, Fla.

Reed, W. Edgar, Pittsburgh, Pa.

Robert & Co., Inc., Atlanta, Ga.

Sanderson & Porter, New York, N. Y.

Shaw, Joe S., Atlanta, Ga.

Totten, Inc., Robert L., Birmingham, Ala.

Weller, Francis R., Washington, D. C.

**ENGINEERS. (Bridge.)**

Associated Engineers, Inc., West Palm Beach, Fla.

Butler, Barnett & Taylor, West Palm Beach, Fla.

Carr & McFadden, Inc., West Palm Beach, Fla.

Edwards, L. V., Winston-Salem, N. C.

Fay, Spofford & Thorndike, Boston, Mass.

Freeland, Roberts & Co., Nashville, Tenn.

Fugate Engineering Co., H. C., West Palm Beach, Fla.

Gardner & Howe, Memphis, Tenn.

Greiner & Co., J. E., Baltimore, Md.

Hardaway Contracting Co., Columbus, Ga.

Howerton Engineering Co., Asheville, N. C.

Luten, Daniel B., Indianapolis, Ind.

Parker, James L., Charleston, S. C.

Robinson & Co., Inc., Dwight P., New York, N. Y.

Steel and Leiby, Knoxville, Tenn.

Tidewater Construction Co., Fort Lauderdale, Fla.

Turner, C. A. P., Minneapolis, Minn.

Virginia Bridge & Iron Co., Roanoke, Va.

ENGINEERS. (Chemical.)

Dow & Smith, New York, N. Y.

Meigs, Bassett & Slaughter, Phila., Pa.

Mount, W. D., Lynchburg, Va.

**Pittsburgh Testing Lab., Pittsburgh, Pa.**

Southern Testing Laboratories, Inc., Birmingham, Ala.

**ENGINEERS. (Civil.)**

Associated Engineers, Inc., West Palm Beach, Fla.  
Baird & Scriber, Lakeland, Fla.  
Batley & Kipp, Inc., Chicago, Ill.  
Baxter Engineering Co., Little Rock, Ark.  
Bebe Co., The Harwood, Spartanburg, S. C.

**ENGINEERS. (Dam.)**

Amhurst, N. F., Swiswale P. O., Pittsburgh, Pa.  
Batley & Kipp, Inc., Chicago, Ill.  
Black, McKenney & Stewart, Wash., D. C.  
Brillaby Engineering & Management Corp., Chicago, Ill.  
Cooper & Co., Hugh L., New York, N. Y.  
Gardner & Howe, Memphis, Tenn.  
Hardaway Contracting Co., Columbus, Ga.  
Harper & Taylor, Inc., Philadelphia, Pa.  
Lee, William S., Charlotte, N. C.  
Main, Chas. T., Boston, Mass.  
Robert & Co., Inc., Atlanta, Ga.  
Robinson & Co., Inc., Dwight P., New York, N. Y.  
Sirrine & Co., J. E., Greenville, S. C.  
Tucker & Laxton, Charlotte, N. C.  
Weller, Francis R., Washington, D. C.  
Wells, James P., Rochester, N. Y.  
White Engineering Corp., J. G., New York.  
Whitner & Co., Inc., Wm. C., Richmond, Va.  
Williamson, S. B., Charlottesville, Va.  
Willis, W. N., Spartanburg, S. C.

**ENGINEERS. (Drainage and Irrigation.)**

Baxter Engineering Co., Little Rock, Ark.  
Bridgeman & Allen, Inc., West Palm Beach, Fla.

**ENGINEERS. (Efficiency.)**

Black, McKenney & Stewart, Wash., D. C



- Cornell-Mathews Co., Orlando, Fla.  
 Day & Zimmermann, Inc., Phila., Pa.  
 Fannon, Ralph W., Green Bay, Wis.  
 Ford, Bacon & Davis, Inc., New York.  
 Harper & Taylor, Inc., Philadelphia, Pa.  
 Lee, William S., Charlotte, N. C.  
 Long Co., The M. A., Baltimore, Md.  
 Markel Co., The Atlanta, Ga.  
 Muller, Arthur L., Kansas City, Mo.  
 Ophuls & Hill, Inc., New York.  
 Pender, W. H., Houston, Texas.  
 Prack, Bernard H., Pittsburgh, Pa.  
 Reed, W. Edgar, Pittsburgh, Pa.  
 Robinson & Co., Inc., Dwight P., New York, N. Y.  
 Sanderson & Porter, New York, N. Y.  
 Schaap & Son, Chas. E., Harrisburg, Pa.  
 Scofield Engineering Co., Phila., Pa.  
 Stone & Webster, Inc., Boston, Mass.  
 Tucker & Laxon, Charlotte, N. C.  
 Waller, Francis R., Washington, D. C.  
 White Engineering Corp., J. G., New York.  
 White Co., Gilbert C., Durham, N. C.
- ENGINEERS. (Gaa.)**  
 Byllesby Engineering & Management Corp., Chicago, Ill.  
 Ford, Bacon & Davis, Inc., New York.  
 McGee, E. C., Monroe, La.  
 U. G. I. Contracting Co., The Phila., Pa.
- ENGINEERS. (Geological.)**  
 Clark & Krebs, Charleston, W. Va.  
 DeKalb Courtenay, University Alabama.  
 Froehling & Robertson, Inc., Richmond, Va.
- ENGINEERS. (Harbor Improvements.)**  
 Black, McKenney & Stewart, Wash., D. C.  
 Fay, Spofford & Thorndike, Boston, Mass.
- ENGINEERS. (Heating.)**  
 Battey & Kipp, Inc., Chicago, Ill.  
 Markel Co., The Atlanta, Ga.  
 Wiley & Wilson, Lynchburg, Va.
- ENGINEERS. (Hydraulic.)**  
 Amburn, N. F., Swissvale P. O., Pittsburgh, Pa.  
 Baird & Schriber, Lakeland, Fla.  
 Baxter Engineering Co., Little Rock, Ark.  
 Fuller & McClintock, New York, N. Y.  
 Schaap & Son, Chas. E., Harrisburg, Pa.  
 Wells, James P., Rochester, N. Y.  
 Williamson, S. B., Charlottesville, Va.
- ENGINEERS. (Hydro-Electric.)**  
 Amburn, N. F., Swissvale P. O., Pittsburgh, Pa.  
 Battey & Kipp, Inc., Chicago, Ill.  
 Baxter Engineering Co., Little Rock, Ark.  
 Black, McKenney & Stewart, Wash., D. C.  
 Byllesby Engineering & Management Corp., Chicago, Ill.  
 Cooper & Co., Hugh L., New York, N. Y.  
 Day & Zimmermann, Inc., Phila., Pa.  
 Harper & Taylor, Inc., Philadelphia, Pa.  
 Hawley & Co., Inc., Chas. B., Washington, D. C.  
 Lee, William S., Charlotte, N. C.  
 Ludlow Engineers, Winston-Salem, N. C.  
 Main, Chas. T., Boston, Mass.  
 Mees & Mees, Charlotte, N. C.  
 Platt, William M., Durham, N. C.  
 Reed, W. Edgar, Pittsburgh, Pa.  
 Robinson & Co., Inc., Dwight P., New York, N. Y.  
 Sanderson & Porter, New York, N. Y.  
 Scofield Engineering Co., Phila., Pa.  
 Sirrine & Co., J. E., Greenville, S. C.  
 Tucker & Laxon, Charlotte, N. C.  
 U. G. I. Contracting Co., The Phila., Pa.  
 Waller, Francis R., Washington, D. C.  
 Wells, James P., Rochester, N. Y.  
 White Engineering Corp., J. G., New York.  
 Whitner & Co., Inc., Wm. C., Richmond, Va.  
 Williamson, S. B., Charlottesville, Va.
- ENGINEERS. (Ice-Making Plants.)**  
 Cornell-Mathews Co., Orlando, Fla.  
 Ophuls & Hill, Inc., New York.
- ENGINEERS. (Industrial Plants.)**  
 Austin Co., The Cleveland, Ohio.  
 Battey & Kipp, Inc., Chicago, Ill.  
 Bell, George C., Charlotte, N. C.  
 Cable Excavator Co., The Fernwood, Pa.  
 Cornell-Mathews Co., Orlando, Fla.  
 Dallas, Park A., Atlanta, Ga.  
 Day & Zimmermann, Inc., Phila., Pa.  
 Fannon, Ralph W., Green Bay, Wis.  
 Fay, Spofford & Thorndike, Boston, Mass.  
 Gardner & Howe, Memphis, Tenn.  
 Griffin-Hodges Co., The Atlanta, Ga.  
 Hills Co., George B., Jacksonville, Fla.  
 Long Co., The M. A., Baltimore, Md.  
 Loper & Co., Ralph E., Fall River, Mass.  
 McGee, E. C., Monroe, La.  
 Main, Chas. T., Boston, Mass.  
 Mees & Mees, Charlotte, N. C.  
 Mount, W. D., Lynchburg, Va.  
 Muller, Arthur L., Kansas City, Mo.  
 Ophuls & Hill, Inc., New York.  
 Parker, James L., Charleston, S. C.  
 Prack, Bernard H., Pittsburgh, Pa.  
 Freeder & Co., Inc., G. Lloyd, Atlanta, Ga.  
 Robert & Co., Inc., Atlanta, Ga.  
 Robinson & Co., Inc., Dwight P., New York, N. Y.  
 Sanderson & Porter, New York, N. Y.  
 Scofield Engineering Co., Phila., Pa.  
 Shaw, Jos. B., Atlanta, Ga.  
 Sirrine & Co., J. E., Greenville, S. C.  
 Stone & Webster, Inc., Boston, Mass.  
 Sutton & Routt, Fort Lauderdale, Fla.  
 Turner, C. A. P., Minneapolis, Minn.  
 White Engineering Corp., J. G., New York.  
 Willis, W. N., Spartanburg, S. C.
- ENGINEERS. (Inspection and Tests.)**  
 Camp & Associates, E. V., Atlanta, Ga.  
 Conrad & Busby, Burlington, N. J.  
 Dow & Smith, New York, N. Y.  
 Fannon, Ralph W., Green Bay, Wis.  
 Froehling & Robertson, Inc., Richmond, Va.  
 Hunt Co., Robert W., Chicago, Ill.
- Laverie & Sons, Inc., R. H., New York, N. Y.  
 Pittsburgh Testing Lab., Pittsburgh, Pa.  
 Reed, W. Edgar, Pittsburgh, Pa.  
 Southern Testing Laboratories, Inc., Birmingham, Ala.  
 Southwestern Laboratories, Fort Worth, Tex.  
 Spiker & Loe, Atlanta, Ga.
- ENGINEERS. (Landscape.)**  
 Baird & Schriber, Lakeland, Fla.  
 Chicago Landscape Co., Chicago, Ill.  
 Clemens & Bahman, Jacksonville, Fla.  
 Cox, P. L., Lakeland, Fla.  
 Draper, E. S., Charlotte, N. C.  
 Duane, H. J., Miami, Fla.  
 Florida Landscape Engineering Co., Inc., Tampa, Fla.  
 Lindville, Ralph E., Danville, Va.  
 Mackintosh, C. G., High Point, N. C.  
 Noyes, John, St. Louis, Mo.  
 Spoon & Lewis, Greensboro, N. C.  
 Sutton & Routt, Fort Lauderdale, Fla.  
 Taylor Office, A. D., Orlando, Fla.
- ENGINEERS. (Lighting.)**  
 Battey & Kipp, Inc., Chicago, Ill.  
 Byllesby Engineering & Management Corp., Chicago, Ill.  
 Day & Zimmermann, Inc., Phila., Pa.  
 Ford, Bacon & Davis, Inc., New York.  
 McCrary Co., The J. B., Atlanta, Ga.  
 Wiley & Wilson, Lynchburg, Va.
- ENGINEERS. (Lime Kiln.)**  
 Mount, W. D., Lynchburg, Va.
- ENGINEERS. (Mechanical.)**  
 Battey & Kipp, Inc., Chicago, Ill.  
 Camp & Associates, E. V., Atlanta, Ga.  
 Day & Zimmermann, Inc., Phila., Pa.  
 Fannon, Ralph W., Green Bay, Wis.  
 Lee, William S., Charlotte, N. C.  
 Mees & Mees, Charlotte, N. C.  
 Mount, W. D., Lynchburg, Va.  
 Pender, W. H., Houston, Texas.  
 Sanderson & Porter, New York, N. Y.  
 Waddell & Co., Chas. E., Asheville, N. C.  
 Wiley & Wilson, Lynchburg, Va.
- ENGINEERS. (Mining.)**  
 Clark & Krebs, Charleston, W. Va.  
 DeKalb Courtenay, University Alabama.  
 Reed, W. Edgar, Pittsburgh, Pa.
- ENGINEERS. (Municipal.)**  
 Archer & Co., E. T., Kansas City, Mo.  
 Associated Engineers, Inc., West Palm Beach, Fla.  
 Baird & Schriber, Lakeland, Fla.  
 Beebe Co., The Harwood, Spartanburg, S. C.  
 Black, McKenney & Stewart, Wash., D. C.  
 Bridgeman & Allen, Inc., West Palm Beach, Fla.  
 Butler, Barnett & Taylor, West Palm Beach, Fla.  
 Camp & Associates, E. V., Atlanta, Ga.  
 Carr & McFadden, Inc., West Palm Beach, Fla.  
 Clark & Krebs, Charleston, W. Va.  
 Cox, P. L., Lakeland, Fla.  
 Dow & Smith, New York, N. Y.  
 Duane, H. J., Miami, Fla.  
 Fugate Engineering Co., H. C., West Palm Beach, Fla.  
 Hills Co., George B., Jacksonville, Fla.  
 Howerton Engineering Co., Asheville, N. C.  
 Klyce & Harrah, Nashville, Tenn.  
 Knowles, Inc., Morris, Pittsburgh, Pa.  
 Lindville, Ralph E., Danville, Va.  
 Ludlow Engineers, Winston-Salem, N. C.  
 McCrary Co., The J. B., Atlanta, Ga.  
 McGee, E. C., Monroe, La.  
 Maury & Gordon, Chicago, Ill.  
 Page Engineering Co., Orlando, Fla.  
 Root Concern, Inc., The Stuart, Fla.  
 Southwick, L. T. B., West Palm Beach, Fla.  
 Spoon & Lewis, Greensboro, N. C.  
 Totten, Inc., Robert L., Birmingham, Ala.  
 White Co., Gilbert C., Durham, N. C.
- ENGINEERS. (Paving and Roads.)**  
 Archer & Co., E. T., Kansas City, Mo.  
 Beebe Co., The Harwood, Spartanburg, S. C.  
 Black, McKenney & Stewart, Wash., D. C.  
 Booker, Warren H., Charlotte, N. C.  
 Camp & Associates, E. V., Atlanta, Ga.  
 Carolina Engineering Co., Charlotte, N. C.  
 Dow & Smith, New York, N. Y.  
 Duane, H. J., Miami, Fla.  
 Edwards, L. V., Winston-Salem, N. C.  
 Freeland, Roberts & Co., Nashville, Tenn.  
 Howerton Engineering Co., Asheville, N. C.  
 Klyce & Harrah, Nashville, Tenn.  
 Lindville, Ralph E., Danville, Va.  
 Ludlow Engineers, Winston-Salem, N. C.  
 Newkirk, A. D., Winter Haven, Fla.  
 Platt, William M., Durham, N. C.  
 Page Engineering Co., Orlando, Fla.  
 Root Concern, Inc., The Stuart, Fla.  
 Southwick, L. T. B., West Palm Beach, Fla.  
 Spoon & Lewis, Greensboro, N. C.  
 Totten, Inc., Robert L., Birmingham, Ala.  
 White Co., Gilbert C., Durham, N. C.  
 Willis, W. N., Spartanburg, S. C.
- ENGINEERS. (Public Service Properties.)**  
 Byllesby Engineering & Management Corp., Chicago, Ill.  
 Cooper & Co., Hugh L., New York, N. Y.  
 Day & Zimmermann, Inc., Phila., Pa.  
 Ford, Bacon & Davis, Inc., New York.  
 Fuller & McClintock, New York, N. Y.  
 Harper & Taylor, Inc., Philadelphia, Pa.  
 Knowles, Inc., Morris, Pittsburgh, Pa.  
 Robinson & Co., Inc., Dwight P., New York, N. Y.  
 Sanderson & Porter, New York, N. Y.  
 Scofield Engineering Co., Phila., Pa.  
 Stone & Webster, Inc., Boston, Mass.  
 U. G. I. Contracting Co., The Phila., Pa.  
 Waller, Francis R., Washington, D. C.  
 White Engineering Corp., J. G., New York.
- ENGINEERS. (Railroad.)**  
 Clark & Krebs, Charleston, W. Va.  
 Mees & Mees, Charlotte, N. C.
- ENGINEERS. (Refrigerating.)**  
 Markel Co., The Atlanta, Ga.  
 Ophuls & Hill, Inc., New York.  
 York Mfg. Co., York, Pa.
- ENGINEERS. (Reinforced Concrete Bridges, Buildings, etc.)**  
 Associated Engineers, Inc., West Palm Beach, Fla.  
 Battey & Kipp, Inc., Chicago, Ill.  
 Camp & Associates, E. V., Atlanta, Ga.  
 Carolina Engineering Co., Charlotte, N. C.  
 Fay, Spofford & Thorndike, Boston, Mass.  
 Freeland, Roberts & Co., Nashville, Tenn.  
 Gardner & Howe, Memphis, Tenn.  
 Greiner & Co., J. E., Baltimore, Md.  
 Long Co., The M. A., Baltimore, Md.  
 Luten, Daniel B., Indianapolis, Ind.  
 Parker, James L., Charleston, S. C.  
 Robinson & Co., Inc., Dwight P., New York, N. Y.  
 Southwick, L. T. B., West Palm Beach, Fla.  
 Spiker & Loe, Atlanta, Ga.  
 Steel and Leiby, Knoxville, Tenn.  
 Tucker & Laxon, Charlotte, N. C.  
 Turner, C. A. P., Minneapolis, Minn.  
 White Engineering Corp., J. G., New York.  
 Williamson, S. B., Charlottesville, Va.  
 Willis, W. N., Spartanburg, S. C.
- ENGINEERS. (Sewage Disposal Plants.)**  
 Bell, George C., Charlotte, N. C.  
 Fuller & McClintock, New York, N. Y.  
 Kaustins Co., Inc., Buffalo, N. Y.  
 Ludlow Engineers, Winston-Salem, N. C.  
 McCrary Co., The J. B., Atlanta, Ga.  
 Markel Co., The Atlanta, Ga.  
 Platt, William M., Durham, N. C.
- ENGINEERS. (Sewerage and Water-Works.)**  
 Archer & Co., E. T., Kansas City, Mo.  
 Beebe Co., The Harwood, Spartanburg, S. C.  
 Bell, George C., Charlotte, N. C.  
 Booker, Warren H., Charlotte, N. C.  
 Bridgeman & Allen, Inc., West Palm Beach, Fla.  
 Butler, Barnett & Taylor, West Palm Beach, Fla.  
 Camp & Associates, E. V., Atlanta, Ga.  
 Carr & McFadden, Inc., West Palm Beach, Fla.  
 Conrad & Busby, Burlington, N. J.  
 Corning, L. H., Lakeland, Fla.  
 Cox, P. L., Lakeland, Fla.  
 Edwards, L. V., Winston-Salem, N. C.  
 Ford, Bacon & Davis, Inc., New York.  
 Fugate Engineering Co., H. C., West Palm Beach, Fla.  
 Fuller & McClintock, New York, N. Y.  
 Hardaway Contracting Co., Columbus, Ga.  
 Hawley & Co., Inc., Chas. B., Washington, D. C.  
 Hills Co., George B., Jacksonville, Fla.  
 Howerton Engineering Co., Asheville, N. C.  
 Klyce & Harrah, Nashville, Tenn.  
 Knowles, Inc., Morris, Pittsburgh, Pa.  
 Lindville, Ralph E., Danville, Va.  
 Ludlow Engineers, Winston-Salem, N. C.  
 Maury & Gordon, Chicago, Ill.  
 Mees & Mees, Charlotte, N. C.  
 Newkirk, A. D., Winter Haven, Fla.  
 Platt, William M., Durham, N. C.  
 Sanderson & Porter, New York, N. Y.  
 Schaap & Son, Chas. E., Harrisburg, Pa.  
 Spoon & Lewis, Greensboro, N. C.  
 Totten, Inc., Robert L., Birmingham, Ala.  
 Tucker & Laxon, Charlotte, N. C.  
 White Engineering Corp., J. G., New York.  
 White Co., Gilbert C., Durham, N. C.  
 Williamson, S. B., Charlottesville, Va.  
 Willis, W. N., Spartanburg, S. C.
- ENGINEERS. (Structural.)**  
 Butler, Barnett & Taylor, West Palm Beach, Fla.  
 Corning, L. H., Lakeland, Fla.  
 Freeland, Roberts & Co., Nashville, Tenn.  
 Hills Co., George B., Jacksonville, Fla.  
 Parker, James L., Charleston, S. C.  
 Spiker & Loe, Atlanta, Ga.  
 Sutton & Routt, Fort Lauderdale, Fla.  
 Turner, C. A. P., Minneapolis, Minn.  
 Virginia Bridge & Iron Co., Roanoke, Va.
- ENGINEERS. (Textile Mills.)**  
 Austin Co., The Cleveland, Ohio.  
 Bell, George C., Charlotte, N. C.  
 Dallas, Park A., Atlanta, Ga.  
 Loper & Co., Ralph E., Fall River, Mass.  
 Main, Chas. T., Boston, Mass.  
 Sirrine & Co., J. E., Greenville, S. C.
- ENGINEERS. (Heating and Ventilating.)**  
 Markel Co., The Atlanta, Ga.  
 Skinner Bros Mfg. Co., Inc., St. Louis, Mo.  
 Wiley & Wilson, Lynchburg, Va.
- ENGINEERS. (Compressed Air.)**  
 Duke Engine Co., Grand Haven, Mich.
- ENGINEERS. (Corliss.)**  
 Viller Mfg. Co., The Milwaukee, Wis.
- ENGINEERS. (Diesel Type.)**  
 Cramp & Sons Ship & Engine Bldg. Co., The Wm., Philadelphia, Pa.  
 Fairbanks, Morse & Co., Chicago, Ill.  
 Otto Engine Works, Phila., Pa.  
 Superior Gas Engine Co., Springfield, O.  
 INGERSOLL-RAND CO., New York, N. Y.  
 Bessemer Gas Engine Co., Grove City, Pa.  
 Chicago Pneumatic Tool Co., New York.  
 Climax Engineering Co., Clinton, Iowa.  
 Foss Gas Engine Co., The Springfield, O.  
 Ingersoll-Rand Co., New York, N. Y.  
 National Transit Pump & Machine Co., Oil City, Pa.
- Otto Engine Works, Phila., Pa.  
 Superior Gas Engine Co., Springfield, O.
- ENGINES. (Gas and Oil.)**  
 Otto Engine Works, Phila., Pa.  
 Superior Gas Engine Co., Springfield, O.
- ENGINES. (Hoisting.)**  
 American Hoist & Derrick Co., St. Paul, Minn.  
 Clyde Iron Works Sales Co., Duluth, Minn.
- ENGINES. (Marine.)**  
 Cramp & Sons Ship & Engine Bldg. Co., The Wm., Philadelphia, Pa.  
 Murray Iron Works Co., Burlington, Ia.
- ENGINES. (Oil.)**  
 Anderson Engine & Foundry Co., Anderson, Ind.  
 Bessemer Gas Engine Co., Grove City, Pa.  
 Chicago Pneumatic Tool Co., New York.  
 Fairbanks, Morse & Co., Chicago, Ill.  
 Foss Gas Engine Co., The Springfield, O.  
 Ingersoll-Rand Co., New York, N. Y.  
 McMillan, A., Chicago, Ill.  
 National Transit Pump & Machine Co., Oil City, Pa.  
 Otto Engine Works, Phila., Pa.  
 Power Mfg. Co., The Marion, O.  
 Superior Gas Engine Co., Springfield, O.  
 Tips Engine Works, Austin, Tex.
- ENGINES. (Steam.)**  
 Allis-Chalmers Mfg. Co., Milwaukee, Wis.  
 Brownell Co., The Dayton, Ohio.  
 Cole Mfg. Co., R. D., Newman, Ga.  
 Erie City Iron Works, Erie, Pa.  
 Leffel & Co., The James, Springfield, O.  
 Lombard Iron Works & Supply Co., Augusta, Ga.  
 McMillan, A., Chicago, Ill.  
 Morris Machine Works, Baldwinville, N.Y.  
 Murray Iron Works Co., Burlington, Ia.  
 National Transit Pump & Machine Co., Oil City, Pa.  
 Orr & Sember, Inc., Reading, Pa.  
 Schofield's Iron Works, Macon, Ga.
- ENVELOPES.**  
 Smith Co., The Oscar T., Baltimore, Md.  
 Young & Selden Co., Baltimore, Md.
- EXCAVATING MACHINERY.**  
 Bay City Dredge Works, Bay City, Mich.  
 Bucyrus Co., South Milwaukee, Wis.  
 Clyde Iron Works Sales Co., Duluth, Minn.  
 Harniss-Heger Corp., Milwaukee, Wis.  
 Hayward Co., The New York, N. Y.  
 Insley Mfg. Co., Indianapolis, Ind.  
 Monaghan Machine Co., Chicago, Ill.  
 Northwest Engineering Co., Chicago, Ill.  
 Osgood Co., The Marion, Ohio.  
 Owen Buckel Co., The Cleveland, Ohio.  
 Parsons Co., The Newton, Iowa.  
 Smith Co., The T. L., Milwaukee, Wis.  
 Thew Shovel Co., The Lorain, O.
- EXCAVATORS. (Cableway Draglines.)**  
 Bucyrus Co., South Milwaukee, Wis.  
 Bucyrus Machine Co., The Racine, Wis.  
 Lidgerwood Mfg. Co., New York, N. Y.  
 Monaghan Machine Co., Chicago, Ill.  
 Northwest Engineering Co., Chicago, Ill.
- EXCAVATORS. (Clamshell and Orange Peel.)**  
 Marion Steam Shovel Co., The Marion, O.
- EXCAVATORS. (Trench.)**  
 Bay City Dredge Works, Bay City, Mich.  
 Erie Steam Shovel Co., Erie, Pa.  
 Harniss-Heger Corp., Milwaukee, Wis.  
 Hayward Co., The New York, N. Y.  
 Marion Steam Shovel Co., The Marion, O.  
 Monaghan Machine Co., Chicago, Ill.  
 Parsons Co., The Newton, Iowa.
- EXHAUST HEADS.**  
 Abendroth & Root Mfg. Co., New York.  
 American Spiral Pipe Works, Chicago, Ill.  
 Burt Mfg. Co., The Akron, Ohio.
- EXHAUST SYSTEMS.**  
 Sterling Blower Co., Hartford, Conn.
- EXIT DEVICES.**  
 Vonnegut Hardware Co., Indianapolis, Ind.
- EXPANDED METAL LATH REINFORCING.**  
 Southern Steel Products Co., Richmond, Va.
- EXPANSION JOINTS.**  
 Pioneer Asphalt Co., Lawrenceville, Ill.
- EXPLOSIVES.**  
 Du Pont de Nemours & Co., Inc., W. L., Wilmington, Del.
- FACTORY MANAGEMENT SYSTEMS.**  
 Ernst & Ernst, New York, N. Y.
- FANS. (Exhaust.)**  
 Sterling Blower Co., Hartford, Conn.
- FEED-WATER HEATERS AND PURIFIERS.**  
 American Water Softener Co., Phila., Pa.  
 Brownell Co., The Dayton, Ohio.  
 Casey-Hedges Co., Chattanooga, Tenn.  
 Erie City Iron Works, Erie, Pa.
- FENCING. (Field and Industrial Wire Woven.)**  
 American Steel & Wire Co., Balto., Md.  
 Anchor Post Iron Works, New York, N. Y.  
 Century Fence Co., Pascagoula, Miss.  
 Cyclone Fence Co., Waukegan, Ill.  
 Gulf States Steel Co., Birmingham, Ala.  
 Stewart Iron Works Co., Cincinnati, O.  
 Wickwire Spencer Steel Co., New York.
- FENCING ENTRANCE GATES. (Iron, Steel and Wire.)**  
 American Steel & Wire Co., Balto., Md.  
 Anchor Post Iron Works, New York, N. Y.

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Cyclone Fence Co., Waukegan, Ill.  
Dufur & Co., Baltimore, Md.  
Stewart Iron Works Co., Cincinnati, O.
- FERTILIZER MACHINERY.**  
Raymond Bros. Impact Pulverizer Co., Chicago, Ill.  
Standard Cast Iron Pipe & Foundry Co., Atlanta, Ga.
- FILES.**  
Barnett Co., G. & H., Phila., Pa.  
Nicholson File Co., Providence, R. I.
- FILTER CONTROLLERS AND GAUGES.**  
Simplax Valve & Meter Co., Phila., Pa.
- FILTERS.** (For Domestic & Industrial Purposes.)  
American Water Softener Co., Phila., Pa.  
International Filter Co., Chicago, Ill.  
Roberts Filter Mfg. Co., Darby (Phila.), Pa.
- FINANCING.**  
Adair Realty & Trust Co., Atlanta, Ga.  
Electric Bond & Share Co., New York.  
Miller & Co., Inc., G. L., Atlanta, Ga.
- FIRE BRICK.**  
Alabama Clay Products Co., Birmingham, Ala.  
American Enamelled Brick & Tile Co., New York.  
Ashland Fire Brick Co., Ashland, Ky.  
Birmingham Clay Products Co., Birmingham, Ala.  
Cambria Clay Products Co., Blackfork, O.  
Dixie Fireproofing Co., Macon, Ga.  
Gautier & Co., J. H., Jersey City, N. J.  
Portsmouth Refractories Co., Portsmouth, O.  
Robinson Clay Product Co., Akron, O.  
Savage Mountain Fire Brick Co., Frostburg, Md.  
Stevens, Inc., Atlanta, Ga.  
Thornton Fire Brick Co., Clarksburg, W. Va.  
Union Mining Co., Mt. Savage, Md.  
Walsh Fire Clay Products Co., St. Louis, Mo.  
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Dixie Fireproofing Co., Macon, Ga.  
Portsmouth Refractories Co., Portsmouth, O.  
Walsh Fire Clay Products Co., St. Louis, Mo.
- FIRE CLAY FLUE LININGS.**  
Oconee Brick & Tile Co., Milledgeville, Ga.  
Stevens, Inc., Atlanta, Ga.
- FIRE ESCAPES.**  
Chesapeake Iron Works, Baltimore, Md.
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Vonnegut Hardware Co., Indianapolis, Ind.
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Knight & Thomas, Inc., Boston, Mass.  
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Waterson Fire Engine Works, Inc., St. Paul, Minn.
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Bannon Pipe Co., Louisville, Ky.  
Robertson Co., H. H., Pittsburgh, Pa.
- FIREPROOF DOORS AND SHUTTERS.**  
Dahlstrom Metallic Door Co., Jamestown, N. Y.  
Kinnear Mfg. Co., The Columbus, Ohio.  
Moeschl-Edwards Corrugating Co., Inc., Cincinnati, Ohio.
- FIREPROOFING.** (Brick and Tile.)  
Oconee Brick & Tile Co., Milledgeville, Ga.
- FIREPROOFING MATERIAL AND CONSTRUCTION.**  
Peele Co., The Brooklyn, N. Y.
- FITTINGS.** (Wire Rope.)  
Leechen & Sons Rope Co., A., St. Louis, Mo.
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American Cast Iron Pipe Co., Birmingham, Ala.  
American Spiral Pipe Works, Chicago, Ill.  
Dart Mfg. Co., E. M., Providence, R. I.  
National Cast Iron Pipe Co., Birmingham, Ala.  
U. S. Cast Iron Pipe & Foundry Co., Burlington, N. J.  
Vogt Machine Co., Inc., Henry, Louisville, Ky.
- FLOOR ANCHORS.**  
Bull Dog Floor Clip Co., Winterset, Iowa.
- FLOOR COVERING.**  
Bonded Floors Co., Inc., Philadelphia, Pa.
- FLOOR COVERING.** (Carpet.)  
Leedom Co., Thomas L., Bristol, Pa.
- FLOOR HARDENER.** (Concrete.)  
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- FLOOR HARDENING.** (Surface Treatment.)  
Sommer Bros. Inc., L., New York.
- FLOORING.** (Composition.)  
Barber Asphalt Co., Phila., Pa.
- FLOORING.** (Crescoted Blocks.)  
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Long-Bell Lumber Co., Kansas City, Mo.  
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Kerlow Steel Flooring Co., Jersey City, N. J.
- FLOORING.** (Open Steel.)  
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Bonded Floors Co., Inc., Philadelphia, Pa.
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Pacific Flush-Tank Co., New York, N. Y.
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Southern Spindle & Flyer Co., Inc., Charlotte, N. C.
- FLYERS.**  
Southern Spindle & Flyer Co., Inc., Charlotte, N. C.
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McMyler-Interstate Co., The Cleveland, O.  
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Heltzel Steel Form & Iron Co., Warren, O.  
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Bessemer Galvanizing Works, Birmingham, Ala.
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Maryland Metal Building Co., Balto., Md.
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Ocean Stone & Gravel Co., Tampa, Fla.  
Petersburg Sand & Gravel Corp., Petersburg, Va.  
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- HEATERS.** (Special Purpose.)  
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Clyde Iron Works Sales Co., Duluth, Minn.  
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Harnischfeger Corp., Milwaukee, Wis.  
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Domestic Engine & Pump Co., Shippensburg, Pa.  
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Long-Bell Lumber Co., Kansas City, Mo.  
Southern Cypress Mfrs. Association, New Orleans, La.
- LUMBER.** (Creosoted.)  
American Creosote Works, Inc., New Orleans, La.  
American Creosoting Co., Inc., Louisville, Ky.  
Eppinger & Russell Co., New York, N. Y.  
Gulf States Creosoting Co., Hattiesburg, Miss.  
Long-Bell Lumber Co., Kansas City, Mo.  
Savannah Creosoting Co., Inc., Savannah, Ga.
- LUMBER.** (Heavy Construction, Pitch, Pine, Etc.)  
Bacon & Sons, A. S., Savannah, Ga.  
Eastman, Gardiner & Co., Laurel, Miss.  
Exchange Sawmills Sales Co., Kansas City, Mo.  
Great Southern Lumber Co., Bogalusa, La.  
Industrial Lumber Co., Elizabeth, La.  
Long-Bell Lumber Co., Kansas City, Mo.  
Southern Cypress Mfrs. Association, New Orleans, La.
- LUMBER.** (Steel.)  
Truscon Steel Co., Youngstown, O.
- LUMBER.** (Tupelo.)  
Southern Cypress Mfrs. Association, New Orleans, La.
- LUMBER.** (Yellow Pine.)  
Bacon & Sons, A. S., Savannah, Ga.  
Eastman, Gardiner & Co., Laurel, Miss.  
Exchange Sawmills Sales Co., Kansas City, Mo.  
Great Southern Lumber Co., Bogalusa, La.  
Hull Lumber Co., C. G., Laurel, Miss.  
Industrial Lumber Co., Elizabeth, La.  
Long-Bell Lumber Co., Kansas City, Mo.
- MACHINERY.** (Special.)  
Bliss Co., E. W., Brooklyn, N. Y.  
Dodge Mfg. Corp., Mishawaka, Ind.
- MACHINERY AND SUPPLIES.** (New and Used.)  
Bay City Dredge Works, Bay City, Mich.  
Brooks Supply Co., Beaumont, Texas.  
Cosby, Clarence, Richmond, Va.  
Eastern Machy. Co., Cincinnati, Ohio.  
Equitable Equipment Co., Inc., New Orleans, La.  
Hedfield-Pendfield Steel Co., Bucyrus, O.  
Herfurth Engine & Machinery Co., Alexandria, Va.  
Hitner's Sons Co., Henry A., Phila., Pa.  
Industrial Power Equip. Co., Balto., Md.  
Klein & Co., Nathan, New York, N. Y.  
Lehman, Chas. T., Birmingham, Ala.  
McMillan, A., Chicago, Ill.  
Mallory Machinery Corp., Baltimore, Md.  
Marine Metal & Supply Co., New York.  
Martin Mch. Co., E. A., Joplin, Mo.  
Moore & MacDonald, New York, N. Y.  
Morrison Co., Hackley, Richmond, Va.  
Nashville Industrial Corp., Old Hickory, Tenn.  
O'Brien Machinery Co., The, Phila., Pa.  
Pipe & Contractors' Supply Co., New York.  
Power Machinery Exchange, Jersey City, N. J.  
Prentiss & Co., Inc., Henry, New York.  
Randle Machinery Co., The, Cincinnati, O.  
Ryerston & Son, Inc., Jos. T., St. Louis, and New York.  
Sales Corp., The, Alexandria, Va.  
Seifert's Sons, Inc., L. F., Phila., Pa.  
Stewart (Electric), S. J., New Orleans, La.  
Tarr, Inc., Louis A., Baltimore, Md.  
Toomey, Inc., Frank, Philadelphia, Pa.  
Wilson-Hook Co., Hopewell, Va.  
Zelmecker Supply Co., W. A., St. Louis, Mo.
- MACHINE TOOLS.**  
Cisco Machine Tool Co., Cincinnati, Ohio.  
Ryerston & Son, Inc., Jos. T., St. Louis and New York.
- MACHINE TOOLS.** (Used.)  
Delta Equipment Co., Philadelphia, Pa.
- MAGNETIC SEPARATORS.**  
Buchanan Co., Inc., C. G., New York, N. Y.
- MAGNETS.** (Lifting.)  
Ohio Electric & Controller Co., Cleveland, Ohio.
- MAIL CHUTES.**  
Cutler Mail Chute Co., Rochester, N. Y.
- MANUFACTURERS AGENTS.**  
O'Neill, Jr., Wm., Asheville, N. C.
- MANUFACTURING SITES.**  
Alabama Power Co., Birmingham, Ala.  
Albany Chamber of Commerce, Albany, Ga.  
Arkansas Light & Power Co., Pine Bluff, Ark.  
Atlanta & West Point R. R., Atlanta, Ga.  
Austin Co., The, Cleveland, O.  
Bureau of Immigration, Dept. of Agriculture, Tallahassee, Fla.  
Central of Georgia Rwy., Savannah, Ga.  
Columbus Elec. & Power Co., Columbus, Ga.
- Columbus, Ga., New Industries Committee.  
Daytona Beach Chamber of Commerce, Daytona Beach, Fla.  
Georgia Railway & Power Co., Atlanta, Ga.  
Greater Palm Beach Chamber of Commerce, Palm Beach, Fla.  
Hammond & Co., Brooksville, Fla.  
Hendersonville Ch. of Com., Hendersonville, N. C.  
Louisiana Power & Light Co., Sterlington, La.  
Louisiana Southern Railway Co., New Orleans, La.  
Miami Chamber of Commerce, Miami, Fla.  
Mississippi Power & Light Co., Jackson, Miss.  
Missouri Pacific R. R. Co., St. Louis, Mo.  
Mobile Cham. of Commerce, Mobile, Ala.  
Model Land Company of the Flagler System, St. Augustine, Fla.  
Savannah Board of Trade, Savannah, Ga.  
Seaboard Air Line Railway Co., Savannah, Ga.  
Sheffield-Tusculum Chamber of Commerce, Sheffield, Ala.  
Southern Railway System, Wash., D. C.  
Tennessee Electric Power Co., Chattanooga, Tenn.  
Valdosta Cham. of Com., Valdosta, Ga.
- MARQUISE.**  
Probert Sheet Metal Co., Covington, Ky.
- METAL-CUTTING MACHINES.**  
Atkins & Co., Inc., E. C., Indianapolis, Ind.
- METAL WORKING MACHINERY.**  
Bliss Co., E. W., Brooklyn, N. Y.
- METERS.** (Electric.)  
Piedmont Electric Co., Asheville, N. C.
- METERS.** (Production.)  
Durant Mfg. Co., Milwaukee, Wis.
- METERS.** (Venturi and Pitot Tube Types.)  
Simplex Valve & Meter Co., Phila., Pa.
- MILL MACHINERY AND SUPPLIES.**  
Kries & Sons Co., Henry A., Balto., Md.  
Lombard Iron Works & Supply Co., Augusta, Ga.
- MILLWORK.** (Lumber, All Kinds.)  
Bacon & Sons, A. S., Savannah, Ga.  
Divine Millwork Co., Wilmington, N. C.  
Morgan Millwork Co., Baltimore, Md.
- MINING MACHINERY.**  
Ingersoll-Rand Co., New York, N. Y.  
McLanahan-Stone Machine Co., Hollidaysburg, Pa.
- MIXERS.** (Concrete—see Concrete Mixers)
- MIXERS.** (Hot.)  
Koehring Co., Milwaukee, Wis.
- MORTAR COLORS.**  
Chattanooga Paint Co., Chattanooga, Tenn.
- MOTOR CARS.** (Passenger.)  
Ford Motor Co., Detroit, Mich.
- MOTORS.** (Electric.)  
Crocker-Wheeler Electric Manufacturing Co., Ampere, N. J.  
Fairbanks, Morse & Co., Chicago, Ill.  
Sturtevant Co., S. F., Hyde Park, Boston, Mass.  
Westinghouse Electric & Mfg. Co., E. Pittsburgh, Pa.
- MOTOR TRUCKS.**  
Ford Motor Co., Detroit, Mich.  
General Motors Truck Co., Pontiac, Mich.  
International Harvester Co. of America, Inc., Chicago, Ill.
- MOTOR-TRUCK TIRES.**  
U. S. Rubber Co., New York, N. Y.
- MUSIC WIRE.**  
American Steel & Wire Co., Balto., Md.
- NAILES.** (Cut.)  
Reading Iron Co., Reading, Pa.
- NAILES AND SPIKES.**  
Youngstown Sheet & Tube Co., Youngstown, O.
- NAME PLATES.** (For Bridges.)  
Egyptian Iron Works, Murphysboro, Ill.
- NITROGEN GAS.**  
Linde Air Products Co., The, New York.
- NUTS.** (Cold Punched.)  
Oliver Iron & Steel Corp., Pittsburgh, Pa.
- OIL CUPS.**  
Boson Products Corp., Auburn, N. Y.  
Lunkenheimer Co., The, Cincinnati, Ohio.
- OIL FILTERS.**  
Burt Mfg. Co., The, Akron, Ohio.
- OIL FUEL AND GAS.**  
Gulf Refining Co., Pittsburgh, Pa.
- OILING SYSTEMS.**  
Burt Mfg. Co., The, Akron, Ohio.
- OIL RESERVOIRS.**  
Burt Mfg. Co., The, Akron, Ohio.
- OILS.** (Lubricating, etc.)  
Gulf Refining Co., Pittsburgh, Pa.  
Robinson & Son Co., Wm. C., Balto., Md.
- OIL-WELL MACHINERY.**  
Cook, Inc., A. D., Lawrenceburg, Ind.

IN WRITING ADVERTISERS PLEASE MENTION MANUFACTURERS RECORD. IF YOU NEED ANY PRODUCT NOT ADVERTISED, TELL US. WE WILL FIND IT.

**OPPORTUNITIES.** (Industrial, Agricultural and Commercial.)

Alabama Power Co., Birmingham, Ala.  
 Albany Chamber of Commerce, Albany, Ga.  
 Arkansas Light & Power Co., Pine Bluff, Ark.  
 Atlanta & West Point R. R. Atlanta, Ga.  
 Bureau of Immigration, Dept. of Agriculture, Tallahassee, Fla.  
 Central of Georgia Rwy., Savannah, Ga.  
 Columbus Elec. & Power Co., Columbus, Ga.  
 Columbus, Ga., New Industries Committee.  
 Daytona Beach Chamber of Commerce, Daytona Beach, Fla.  
 Georgia Railway & Power Co., Atlanta, Ga.  
 Greater Palm Beach Chamber of Commerce, Palm Beach, Fla.  
 Hendersonville Ch. of Com., Hendersonville, N. C.  
 Louisiana Power & Light Co., Sterlington, La.  
 Louisiana Southern Railway Co., New Orleans, La.  
 Miami Chamber of Commerce, Miami, Fla.  
 Mississippi Power & Light Co., Jackson, Miss.  
 Missouri Pacific R. R. Co., St. Louis, Mo.  
 Mobile Cham. of Commerce, Mobile, Ala.  
 Model Land Company of the Flagler System, St. Augustine, Fla.  
 Savannah Board of Trade, Savannah, Ga.  
 Seaboard Air Line Railway Co., Savannah, Ga.  
 Southern Railway System, Wash., D. C.  
 Tennessee Electric Power Co., Chattanooga, Tenn.  
 Valdosta Cham. of Com., Valdosta, Ga.

**ORE-WASHING MACHINERY.**

McLanahan-Stone Machine Co., Hollidaysburg, Pa.

**ORNAMENTAL IRON WORK.**

Joliet Bridge Co., The, Burlington, N. C.  
 Moss Iron Works, J. E., Wheeling, W. Va.  
 Besenote Iron & Bridge Works, Inc., Roanoke, Va.  
 Sheard Architectural Iron Works, Louisville, Ky.  
 Stewart Iron Works Co., Cincinnati, O.  
 Van Dorn Iron Works Co., Cleveland, O.

**OXY-ACETYLENE PROCESS.**

Linde Air Products Co., The, New York.

**OXYGEN GAS.**

Linde Air Products Co., The, New York.  
 Prest-O-Lite Co., Inc., The, New York.

**PACKING.** (Asbestos, Metallic, Rubber, Leather, etc.)

Garlock Packing Co., The, Palmyra, N. Y.  
 Goodrich Rubber Co., The B. F., Akron, O.  
 Jenkins Bros., New York, N. Y.  
 New York Belling & Packing Co., New York, N. Y.  
 Power Specialty Co., New York, N. Y.  
 U. S. Rubber Co., New York, N. Y.

**PAINT.** (Metal Surfaces.)

Aluminum Co. of America, Pittsburgh, Pa.  
 Dixon Crucible Co., Jos., Jersey City, N. J.  
 Du Pont de Nemours & Co., Inc., E. I., Philadelphia, Pa.  
 Pittsburgh Plate Glass Co., Pittsburgh, Pa.

**PAINT.** (Mill White, For Interiors.)

Aluminum Co. of America, Pittsburgh, Pa.  
 Du Pont de Nemours & Co., Inc., E. I., Philadelphia, Pa.  
 Pittsburgh Plate Glass Co., Pittsburgh, Pa.  
 Senneborn Sons, Inc., L., New York.

**PAINT.** (Roofing, Building, etc.)

Barber Asphalt Co., Philadelphia, Pa.  
 Chattanooga Paint Co., Chattanooga, Tenn.  
 Du Pont de Nemours & Co., Inc., E. I., Philadelphia, Pa.

**PAINT SPRAYING EQUIPMENT.**

Binks Spray Equipment Co., Chicago, Ill.

**PANIC-EXIT DEVICES.**

Vonnegut Hardware Co., Indianapolis, Ind.

**PAPER-MAKING MACHINERY.**

Fusey & Jones Co., The, Wilmington, Del.

**PARTITIONS.** (Metal, Folding, Rolling.)

Kinross Mfg. Co., The, Columbus, Ohio.  
 Lupton's Sons Co., David, Phila., Pa.  
 Swedish Venetian Blind Co., New York.

**PARTITIONS.** (Sectionfold, Rolling, Wood.)

Wilson Corp., The J. G., New York.

**PARTITIONS.** (Toilet, Shower and Urinal.)

Alberens Stone Co., New York, N. Y.

**PATENT ATTORNEYS.**

Chandler & Chandler, Washington, D. C.  
 Coleman, Watson & Co., Washington, D. C.  
 Evans & Co., Victor J., Washington, D. C.

**PATTERNS.** (Drawing, etc.)

Hass Pattern Co., A. W., Atlanta, Ga.

**PAVING BLOCKS.** (Crescoted Wood.)

Southern Wood Preserving Co., Atlanta, Ga.

**PAVING BRICK.** (Vitified.)

National Paving Brick Mfrs. Association, Cleveland, Ohio.

**PAVING GUARDS.** (Steel.)

Gedwin Co., Inc., W. S., Baltimore, Md.

**PAVING MIXERS.** (Concrete.)

American Cement Machine Co., Inc., Keokuk, Iowa.  
 Chain Belt Co., Milwaukee, Wis.  
 Koehring Co., Milwaukee, Wis.

Smith Co., The T. L., Milwaukee, Wis.  
 Standard Scale & Supply Corp., Pittsburgh, Pa.

**PAVING PLANTS.** (Asphalt.)

Cumner & Son Co., F. D., Cleveland, O.  
 Kinney Mfg. Co., Boston, Mass.  
 Smith Co., The T. L., Milwaukee, Wis.  
 Warren Brothers Co., Boston, Mass.

**PAVING TOOLS.**

Littleford Bros., Cincinnati, O.

**PENSTOCKS.**

Chicago Bridge & Iron Works, Atlanta, Ga.  
 Petroleum Iron Works Co., Sharon, Pa.  
 Pittsburgh-Des Moines Steel Co., Pittsburgh, Pa.  
 Smith Co., S. Morgan, York, Pa.

**PERFORATED METAL.**

Chicago Perforating Co., Chicago, Ill.  
 Erdle Perforating Co., Rochester, N. Y.  
 Harrington & King Perforating Co., Chicago, Ill.  
 Hendrick Mfg. Co., Carbondale, Pa.  
 Manhattan Perforated Metal Co., Inc., New York, N. Y.  
 Mundt & Sons, Charles, Jersey City, N. J.  
 Wickwire Spencer Steel Co., New York.

**PETROLEUM REFINERS.**

Gulf Refining Co., Pittsburgh, Pa.  
 Robinson & Son Co., Wm. C., Balto., Md.  
 Texas Co., The, New York, N. Y.

**PHOSPHATE MACHINERY.**

American Process Co., New York, N. Y.  
 McLanahan-Stone Machine Co., Hollidaysburg, Pa.

**PHOTO-ENGRAVERS.**

Publicity Engravers, Inc., Balto., Md.

**PIG-IRON.**

Hammond Iron Co., Birmingham, Ala.  
 Republic Iron & Steel Co., Youngstown, O.  
 Sloss-Sheffield Steel & Iron Co., Birmingham, Ala.  
 Tennessee Coal, Iron & Railroad Co., Birmingham, Ala.

**PILE DRIVERS.**

McMyler-Interstate Co., The, Cleveland, O.

**PILING.** (Crescoted.)

American Crescote Works, Inc., New Orleans, La.  
 American Crescoting Co., Inc., Louisville, Ky.  
 Savannah Crescoting Co., Inc., Savannah, Ga.

**PILLOW BLOCKS.**

Goldens Foundry & Machine Co., Columbus, Ga.

**PIPE.**

Albert & Davidson Pipe Corp., Brooklyn, N. Y.  
 Albert Pipe Supply Co., Inc., Brooklyn, N. Y.  
 Central Pipe & Supply Co., Charleston, W. Va.  
 Clay Products Association, Chicago, Ill.  
 Cosby, Clarence, Richmond, Va.  
 Greenpoint Iron & Pipe Co., Inc., Brooklyn, N. Y.  
 Hammond Iron Co., Birmingham, Ala.  
 Hudson Pipe & Supply Co., Bayonne, N. J.  
 National Tube Co., Pittsburgh, Pa.

**PIPE.** (Cast Iron.)

American Cast Iron Pipe Co., Birmingham, Ala.  
 Casey-Hedges Co., Chattanooga, Tenn.  
 Cast Iron Pipe Publicity Bureau, Chicago, Ill.  
 Central Foundry Co., The, New York.  
 Glamorgan Pipe & Foundry Co., Lynchburg, Va.  
 McWane Cast Iron Pipe Co., Birmingham, Ala.  
 National Cast Iron Pipe Co., Birmingham, Ala.  
 Standard Cast Iron Pipe & Foundry Co., Atlanta, Ga.  
 U. S. Cast Iron Pipe & Foundry Co., Burlington, N. J.

**PIPE.** (Coil.)

Frick Co., Waynesboro, Pa.  
 York Mfg. Co., York, Pa.

**PIPE.** (Concrete Culvert and Sewer.)

Lock Joint Pipe Co., Ampere, N. J.

**PIPE.** (Culvert.)

Armo Culvert & Flume Mfrs. Assn., Middletown, Ohio.  
 Florida-McCracken Concrete Pipe Co., Tampa, Fla.

**PIPE.** (Dredge.)

Lancaster Iron Works, Inc., Lancaster, Pa.

**PIPE.** (Hammer-Welded.)

National Tube Co., Pittsburgh, Pa.

**PIPE.** (Highway.)

Florida-McCracken Concrete Pipe Co., Tampa, Fla.

**PIPE.** (Iron and Steel.)

Ryerson & Son, Inc., Jos. T., St. Louis, and New York.

**PIPE.** (Riveted.)

Abendroth & Root Mfg. Co., New York.

**PIPE.** (Second-Hand.)

Albert & Davidson Pipe Corp., Brooklyn, N. Y.  
 Albert Pipe Supply Co., Inc., Brooklyn, N. Y.  
 Brooks Supply Co., Beaumont, Texas.  
 Central Pipe & Supply Co., Charleston, W. Va.  
 Greenpoint Iron & Pipe Co., Inc., Brooklyn, N. Y.

Griffith, Frank, Philadelphia, Pa.  
 Hudson Pipe & Supply Co., Bayonne, N. J.  
 Marine Metal & Supply Co., New York.  
 Pipe & Contractors' Supply Co., New York.

**PIPE.** (Sewer.)

Clay Products Association, Chicago, Ill.  
 Florida-McCracken Concrete Pipe Co., Tampa, Fla.  
 Robinson Clay Product Co., Akron, O.

**PIPE.** (Spiral Riveted.)

Abendroth & Root Mfg. Co., New York.

**PIPE.** (Steel.)

National Tube Co., Pittsburgh, Pa.  
 Republic Iron & Steel Co., Youngstown, O.  
 Youngstown Sheet & Tube Co., Youngstown, O.

**PIPE.** (Wood.)

Michigan Pipe Co., Bay City, Mich.  
 Standard Wood Pipe Co., Williamsport, Pa.  
 Wyckoff & Son Co., A., Elmira, N. Y.

**PIPE.** (Wrought Iron.)

Reading Iron Co., Reading, Pa.  
 Youngstown Sheet & Tube Co., Youngstown, O.

**PIPE FITTINGS.**

American Cast Iron Pipe Co., Birmingham, Ala.  
 Griffith, Frank, Philadelphia, Pa.  
 Kries & Sons Co., Henry A., Balto., Md.  
 National Cast Iron Pipe Co., Birmingham, Ala.  
 Standard Cast Iron Pipe & Foundry Co., Atlanta, Ga.

**PIPE UNIONS AND JOINTS.**

Dart Mfg. Co., E. M., Providence, R. I.

**PLATES.** (Steel.)

Bethlehem Steel Co., Bethlehem, Pa.  
 Carnegie Steel Co., Pittsburgh, Pa.  
 Carolina Steel & Iron Co., Greensboro, N. C.

De Cou Co., Richard, Phila., Pa.  
 Republic Iron & Steel Co., Youngstown, O.  
 Ryerson & Son, Inc., Jos. T., St. Louis and New York.

Sharon Steel Hoop Co., Sharon, Pa.  
 Tennessee Coal, Iron & Railroad Co., Birmingham, Ala.

Wood Iron & Steel Co., Alan, Phila., Pa.

**PLATES.** (Steel Tunnel Liner.)

Truscon Steel Co., Youngstown, Ohio.

**PNEUMATIC TOOLS.**

Chicago Pneumatic Tool Co., New York.

Ingersoll-Rand Co., New York, N. Y.

**PNEUMATIC TOOLS.** (Used.)

Philadelphia Tool & Supply Co., Philadelphia, Pa.

**POLES.** (Crescoted.)

American Crescote Works, Inc., New Orleans, La.  
 American Crescoting Co., Inc., Louisville, Ky.  
 Savannah Crescoting Co., Inc., Savannah, Ga.

**POLES.** (Cypress.)

Southern Cypress Mfrs. Association, New Orleans, La.

**POLES.** (Tubular Steel.)

National Tube Co., Pittsburgh, Pa.

**POLISHINGG LATHES.**

Cisco Machine Tool Co., Cincinnati, Ohio.

**POLISHING MCHY.** (Wheels, Blocks.)

Carborundum Co., Niagara Falls, N. Y.

**PORTABLE HOUSES.** (Metal.)

Blaw-Knox Co., Pittsburgh, Pa.

Maryland Metal Building Co., Balto., Md.

**POST CAPS.**

Van Dorn Iron Works Co., Cleveland, O.

Casey-Hedges Co., Chattanooga, Tenn.

U. S. Cast Iron Pipe & Foundry Co., Burlington, N. J.

**POWDERED COAL EQUIPMENT.**

Erie City Iron Works, Erie, Pa.

**POWER PLANT EQUIPMENT.**

Moore & MacDonald, New York, N. Y.

**POWER TRANSMISSION MACHINERY.**

American Pulley Co., Phila., Pa.  
 Cresson-Morris Co., Philadelphia, Pa.  
 Davis Fdry. & Machine Works, Rome, Ga.  
 Dodge Mfg. Corp., Mishawaka, Ind.  
 Goldens Foundry & Machine Co., Columbus, Ga.  
 Limer-Belt Co., Philadelphia, Pa.  
 Morse Chain Co., Ithaca, N. Y.  
 Schofield's Iron Works, Macon, Ga.  
 Wood's Sons Co., T. B., Chambersburg, Pa.

Presses. (Baling, Cottonseed Oil, Hydraulic and Power.)

Cardwell Machine Co., The, Richmond, Va.

Continental Gin Co., Birmingham, Ala.

Davenport Mfg. Co., Inc., Davenport, Ia.

Dunning & Boschert Press Co., Inc., Syracuse, N. Y.

Ripley Foundry & Machine Co., Ripley, O.

**PRESSES.** (Metal Stamping.)

Bliss Co., E. W., Brooklyn, N. Y.

PRINTERS. (Book, Catalog, Job, etc.)

Fleet-McGinley Co., Baltimore, Md.  
 Smith Co., The Oscar T., Baltimore, Md.  
 Young & Seiden Co., Baltimore, Md.

**PULLEYS.** (Friction Clutch.)

Caldwell Co., Inc., W. E., Louisville, Ky.  
 Cresson-Morris Co., Philadelphia, Pa.  
 Wood's Sons Co., T. B., Chambersburg, Pa.

**PULLEYS.** (Magnetic.)

Buchanan Co., Inc., C. G., New York, N. Y.

**PULLEYS.** (Steel Rim.)

American Pulley Co., Phila., Pa.

**PULLEYS, SHAFTING AND HANGERS.**

American Pulley Co., Phila., Pa.  
 Cresson-Morris Co., Philadelphia, Pa.  
 Dodge Mfg. Corp., Mishawaka, Ind.  
 Goldens Foundry & Machine Co., Columbus, Ga.  
 Wood's Sons Co., T. B., Chambersburg, Pa.

**PULVERIZERS.**

Grundler Patent Crusher & Pulverizer Co., St. Louis, Mo.  
 Hardinge Company, Inc., New York City.  
 McLanahan-Stone Machine Co., Hollidaysburg, Pa.

Raymond Bros. Impact Pulverizer Co., Chicago, Ill.

**PUMPING MACHINERY.**

Cook, Inc., A. D., Lawrenceburg, Ind.  
 Dean Bros. Co., Indianapolis, Ind.  
 Earle Gear & Machine Co., Phila., Pa.  
 Ingersoll-Rand Co., (A. S. Cameron Steam Pump Works), New York, N. Y.

McGowan Co., The John H., Cincinnati, O.

Moffatt Machinery Mfg. Co., Charlotte, N. C.

Myers & Bro. Co., The F. E., Ashland, O.

National Transit Pump & Machine Co., Oil City, Pa.

Platt Iron Works, Dayton, O.

Reilly Mfg. Co., Inc., J. J., Louisville, Ky.

Snyder Pump & Well Co., Inc., Richmond, Va.

Virginia Machinery & Well Co., Inc., Richmond, Va.

**PUMPS.** (Air.)

Manistee Iron Works Co., Manistee, Mich.

**PUMPS.** (Air Lift.)

Chicago Pneumatic Tool Co., New York.  
 Ingersoll-Rand Co., New York, N. Y.  
 Sullivan Machinery Co., Chicago, Ill.

PUMPS. (Asphalt and Road Oil.)

Kinney Mfg. Co., Boston, Mass.

**PUMPS.** (Boiler Feed.)

Allis-Chalmers Mfg. Co., Milwaukee, Wis.  
 DeLaval Steam Turbine Co., Trenton, N. J.  
 Earle Gear & Machine Co., Phila., Pa.  
 Erie Pump & Engine Works, Medina, N. Y.

Fairbanks, Morse & Co., Chicago.

Ingersoll-Rand Co., (A. S. Cameron Steam Pump Works), New York, N. Y.

Moffatt Machinery Mfg. Co., Charlotte, N. C.

Myers & Bro. Co., The F. E., Ashland, O.

Reilly Mfg. Co., Inc., J. J., Louisville, Ky.

**PUMPS.** (Centrifugal.)

Allis-Chalmers Mfg. Co., Milwaukee, Wis.  
 Aurora Pump & Mfg. Co., Aurora, Ill.  
 DeLaval Steam Turbine Co., Trenton, N. J.

Earle Gear & Machine Co., Phila., Pa.

Erie Pump & Engine Works, Medina, N. Y.

Fairbanks, Morse & Co., Chicago.

Goulds Mfg. Co., The, Seneca Falls, N. Y.

Ingersoll-Rand Co., (A. S. Cameron Steam Pump Works), New York, N. Y.

Manistee Iron Works Co., Manistee, Mich.

Morris Machine Works, Baldwinville, N. Y.

Nashville Industrial Corp., Old Hickory, Tenn.

Pennsylvania Pump & Compressor Co., Easton, Pa.

Pusey & Jones Co., The, Wilmington, Del.

Wood & Co., R. D., Philadelphia, Pa.

**PUMPS.** (Contractors.)

Aldrich Pump Co., Allentown, Pa.

Domestic Engine & Pump Co., Shippensburg, Pa.

Erie Pump & Engine Works, Medina, N. Y.

**PUMPS.** (Deep Well.)

Aurora Pump & Mfg. Co., Aurora, Ill.  
 Cook, Inc., A. D., Lawrenceburg, Ind.  
 Layne & Bowler Co., Memphis, Tenn.

**PUMPS.** (Dredging.)

Aurora Pump & Mfg. Co., Aurora, Ill.

Elliot Machine Corp., Baltimore, Md.

Erie Pump & Engine Works, Medina, N. Y.

**PUMPS.** (Fire.)

Climax Engineering Co., Clinton, Iowa.

Earle Gear & Machine Co., Phila., Pa.

**PUMPS.** (Hydraulic.)

Aldrich Pump Co., Allentown, Pa.  
 Cardwell Machine Co., The, Richmond, Va.  
 Dean Bros. Co., Indianapolis, Ind.  
 Dunning & Boschert Press Co., Inc., Syracuse, N. Y.

Goulds Mfg. Co., The, Seneca Falls, N. Y.

Nashville Industrial Corp., Old Hickory, Tenn.

**PUMPS.** (Power.)



- Pennsylvania Pump & Compressor Co.**, Easton, Pa.  
**Pitt Iron Works, Dayton, O.**  
**Reilly Mfg. Co., Inc., J. J.**, Louisville, Ky.  
**Snyder Pump & Well Co., Inc.**, Richmond, Va.  
**Vest Brothers Mfg. Co., Inc.**, Louisville, Ky.
- PUMPS.** (Triplex Power.)  
**National Transit Pump & Machine Co.**, Oil City, Pa.
- PUMPS.** (Vacuum.)  
**Allis-Chalmers Mfg. Co.**, Milwaukee, Wis.  
**American Air Compressor Works**, Brooklyn, N. Y.  
**Ingersoll-Rand Co.**, New York, N. Y.  
**McGowan Co.**, The John H., Cincinnati, O.  
**Manistee Iron Works Co.**, Manistee, Mich.  
**Sullivan Machinery Co.**, Chicago, Ill.
- PUMPS.** (Water-Works.)  
**Goulds Mfg. Co.**, The, Seneca Falls, N. Y.  
**McGowan Co.**, The John H., Cincinnati, O.  
**Manistee Iron Works Co.**, Manistee, Mich.  
**PUNCHING AND SHEARING MCHY.**  
**Bliss Co. E. W.**, Brooklyn, N. Y.
- RAILINGS AND GRILLS, IRON AND BRASS.** (Banks and Offices.)  
**Dufur & Co.**, Baltimore, Md.  
**Dufur, Sagout & Co.**, Baltimore, Md.  
**Ludlow-Saylor Wire Co.**, St. Louis, Mo.
- RAILROAD CARS.** (Box, Flat, Gondola.)  
**Wilson & Co. E. H.**, Philadelphia, Pa.
- RAILROAD DITCHERS.**  
**American Hoist & Derrick Co.**, St. Paul, Minn.  
**Marion Steam Shovel Co.**, The, Marion, O.
- RAILROAD EQUIPMENT AND SUPPLIES.** (New.)  
**Cincinnati Frog & Switch Co.**, Cincinnati, Ohio.  
**Georgia Car & Loco. Co.**, Atlanta, Ga.  
**Robinson & Orr, Pittsburgh, Pa.**  
**Sweet's Steel Co.**, Williamsport, Pa.
- RAILROAD EQUIPMENT AND SUPPLIES.** (Used.)  
**Atlanta Loco. & Eqt. Co.**, Atlanta, Ga.  
**Benjamin Equipment Co.**, Harry, St. Louis, Mo.  
**Birmingham Rail & Locomotive Co.**, Birmingham, Ala.  
**Equitable Equipment Co., Inc.**, New Orleans, La.  
**Hyman-Michaels Co.**, Chicago, Ill.  
**Levis & Co.**, Henry, Philadelphia, Pa.  
**Smith & Co. W. M.**, Birmingham, Ala.  
**Southern Iron & Equipment Co.**, Atlanta, Ga.  
**Wilson & Co. E. H.**, Philadelphia, Pa.  
**Wheeler Supply Co. W. A.**, St. Louis, Mo.
- RAILROAD FROGS AND SWITCHES.**  
**Bethlehem Steel Co.**, Bethlehem, Pa.  
**Cincinnati Frog & Switch Co.**, Cincinnati, Ohio.  
**Frank M. K.**, Pittsburgh, Pa.  
**Koppel Industrial Car & Equipment Co.**, Koppel, Pa.  
**Robinson & Orr, Pittsburgh, Pa.**  
**Sweet's Steel Co.**, Williamsport, Pa.
- RAILROADS.** (Offering Industrial, Agricultural and Commercial Opportunities.)  
**Atlanta & West Point R. R.**, Atlanta, Ga.  
**Central of Georgia Ry.**, Savannah, Ga.  
**Missouri Pacific R. R. Co.**, St. Louis, Mo.  
**Model Land Company of the Flagler System.**, St. Augustine, Fla.  
**Seaboard Air Line Railway Co.**, Savannah, Ga.
- RAILS.** (New and Used.)  
**Benjamin Equipment Co.**, Harry, St. Louis, Mo.  
**Carnegie Steel Co.**, Pittsburgh, Pa.  
**Cosby, Clarence**, Richmond, Va.  
**Equitable Equipment Co., Inc.**, New Orleans, La.  
**Frank M. K.**, Pittsburgh, Pa.  
**Hyman-Michaels Co.**, Chicago, Ill.  
**Levis & Co.**, Henry, Philadelphia, Pa.  
**Nashville Industrial Corp.**, Old Hickory, Tenn.  
**Robinson & Orr, Pittsburgh, Pa.**  
**Sherwood, E. C.**, New York, N. Y.  
**Smith & Co. W. M.**, Birmingham, Ala.  
**Southern Iron & Equipment Co.**, Atlanta, Ga.  
**Sweet's Steel Co.**, Williamsport, Pa.  
**Tennessee Coal, Iron & Railroad Co.**, Birmingham, Ala.  
**Weller & Co.**, Birmingham, Ala.  
**West Virginia Rail Co.**, Huntington, W. Va.  
**Wheeler Supply Co. W. A.**, St. Louis, Mo.
- RAILWAYS.** (Industrial.)  
**Cincinnati Frog & Switch Co.**, Cincinnati, Ohio.  
**Hunt Co., Inc. C. W.**, West New Brighton, New York City.  
**Koppel Industrial Car & Equipment Co.**, Koppel, Pa.
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**Charleston Dry Dock & Machine Co.**, Charleston, S. C.
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**Arctic Ice Machine Co.**, Canton, Ohio.  
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**Frick Co. Waynesboro, Pa.**  
**Ingersoll-Rand Co.**, New York, N. Y.  
**Vilter Mfg. Co.**, The, Milwaukee, Wis.  
**Vort Machine Co., Inc.**, Henry, Louisville, Ky.  
**York Mfg. Co.**, York, Pa.
- REINFORCING STEEL.** (Hot Galvanized.)  
**Bessemer Galvanizing Works**, Birmingham, Ala.
- REINFORCING WIRE FABRIC.** (Concrete Road.)  
**Concrete Steel Co.**, New York, N. Y.  
**National Steel Fabric Co.**, Pittsburgh, Pa.
- RESOURCES FOR INDUSTRIES.**  
**Alabama Power Co.**, Birmingham, Ala.  
**Albany Chamber of Commerce**, Albany, Ga.  
**Arkansas Light & Power Co.**, Pine Bluff, Ark.  
**Atlanta & West Point R. R.**, Atlanta, Ga.  
**Bureau of Immigration, Dept. of Agriculture**, Tallahassee, Fla.  
**Central of Georgia Ry.**, Savannah, Ga.  
**Columbus Elec. & Power Co.**, Columbus, Ga.  
**Columbus, Ga., New Industries Committee.**  
**Daytona Beach Chamber of Commerce**, Daytona Beach, Fla.  
**Georgia Railway & Power Co.**, Atlanta, Ga.  
**Greater Palm Beach Chamber of Commerce**, Palm Beach, Fla.  
**Hammond & Co.**, Brooksville, Fla.  
**Hendersonville Ch. of Com.**, Hendersonville, N. C.  
**Louisiana Power & Light Co.**, Starlington, La.  
**Louisiana Southern Railway Co.**, New Orleans, La.  
**Miami Chamber of Commerce**, Miami, Fla.  
**Mississippi Power & Light Co.**, Jackson, Miss.  
**Missouri Pacific R. R. Co.**, St. Louis, Mo.  
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**Model Land Company of the Flagler System.**, St. Augustine, Fla.  
**Savannah Board of Trade**, Savannah, Ga.  
**Seaboard Air Line Railway Co.**, Savannah, Ga.  
**Southern Railway System**, Wash., D. C.  
**Tennessee Electric Power Co.**, Chattanooga, Tenn.  
**Valdosta Cham. of Com.**, Valdosta, Ga.
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**Byers Machine Co.**, The, Ravenna, O.  
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**French & Co. A. W.**, Chicago, Ill.  
**Gallon Iron Works & Mfg. Co.**, Gallon, O.  
**Helzel Steel Form & Iron Co.**, Warren, O.  
**Huber Mfg. Co.**, The, Marion, Ohio.  
**Kinney Mfg. Co.**, Boston, Mass.  
**Littleford Bros.**, Cincinnati, O.  
**Russell Grader Mfg. Co.**, Minneapolis, Minn.  
**Universal Crane Co.**, The, Cleveland, O.  
**Universal Road Machinery Co.**, Kingston, N. Y.  
**Wood Hydraulic Hoist & Body Co.**, Detroit, Mich.
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**Birmingham Slag Co.**, Birmingham, Ala.  
**Boxley & Co. W. W.**, Roanoke, Va.  
**North Carolina Amelite Co.**, Hendersonville, N. C.  
**Petersburg Sand & Gravel Corp.**, Petersburg, Va.  
**Slows-Sheffield Steel & Iron Co.**, Birmingham, Ala.  
**Texas Co.**, The, New York, N. Y.  
**Warren Brothers Co.**, Boston, Mass.  
**Woodstock Slag Corp.**, Birmingham, Ala.
- ROAD BINDERS.**  
**Barber Asphalt Co.**, Philadelphia, Pa.  
**Texas Co.**, The, New York, N. Y.
- ROAD FINISHING MACHINES.**  
**French & Co. A. W.**, Chicago, Ill.
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**Austin-Western Road Machinery Co.**, Chicago, Ill.  
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- ROAD-OILING MACHINERY.**  
**Kinney Mfg. Co.**, Boston, Mass.
- ROAD OILS AND PRESERVATIVES.**  
**Barber Asphalt Co.**, Philadelphia, Pa.  
**Gulf Redding Co.**, Pittsburgh, Pa.  
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**Buffalo-Springfield Roller Co.**, Springfield, Ohio.  
**Gallon Iron Works & Mfg. Co.**, Gallon, O.  
**Huber Mfg. Co.**, The, Marion, Ohio.
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**Acme Road Mchry. Co.**, Frankfort, N. Y.  
**Austin-Western Road Machinery Co.**, Chicago, Ill.  
**Barber Asphalt Co.**, Philadelphia, Pa.  
**Buffalo-Springfield Roller Co.**, Springfield, Ohio.  
**Erie Machine Shops**, Erie, Pa.  
**Huber Mfg. Co.**, The, Marion, Ohio.  
**Universal Road Machinery Co.**, Kingston, N. Y.
- ROAD SCARIFIERS.**  
**Austin-Western Road Machinery Co.**, Chicago, Ill.  
**Buffalo-Springfield Roller Co.**, Springfield, Ohio.  
**Gallon Iron Works & Mfg. Co.**, Gallon, O.
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**American Cement Tile Mfg. Co.**, Pittsburgh, Pa.
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**U. S. Gypsum Co.**, Chicago, Ill.
- ROOFING.** (Metal Shingles.)  
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**Globe Iron Roofing & Corrugating Co.**, Cincinnati, Ohio.  
**Wheeling Metal & Mfg. Co.**, Wheeling, W. Va.
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- ROOFING AND SIDING.** (Metal.)  
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**Ludlow-Saylor Wire Co.**, Chicago, Ill.  
**Oconee Brick & Tile Co.**, Milledgeville, Ga.  
**Southern Mosaic Tile Co.**, Atlanta, Ga.  
**U. S. Gypsum Co.**, Chicago, Ill.
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**Broderick & Bascom Rope Co.**, St. Louis, Mo.  
**Leichen & Sons Rope Co.**, A., St. Louis, Mo.  
**Roebeling's Sons Co.**, John A., Trenton, N. J.
- ROPE DRIVES.**  
**Crescon-Morris Co.**, Philadelphia, Pa.  
**Dodge Mfg. Corp.**, Mishawaka, Ind.  
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**New York Belting & Packing Co.**, New York, N. Y.  
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- SAFES.**  
**York Safe & Lock Co.**, York, Pa.
- SAND.**  
**Arundel Corp.**, The, Baltimore, Md.  
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**Petersburg Sand & Gravel Corp.**, Petersburg, Va.  
**Riverside Sand & Gravel Corp.**, Norfolk, Va.
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**Cable Excavator Co.**, The, Fernwood, Pa.
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**Rundle-Spence Mfg. Co.**, Milwaukee, Wis.
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**Detroit Steel Products Co.**, Detroit, Mich.
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**Detroit Steel Products Co.**, Detroit, Mich.
- SASH.** (Steel Basement, Ventilating.)  
**Detroit Steel Products Co.**, Detroit, Mich.
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**Hutcher Bros. Saw Mfg. Co.**, Rochester, N. Y.
- SAWS.** (Hack.)  
**Atkins & Co., Inc.**, E. C., Indianapolis, Ind.
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**Austin-Western Road Machinery Co.**, Chicago, Ill.  
**Western Wheeled Scraper Co.**, Aurora, Ill.
- SCRAP IRON AND STEEL.**  
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**Hyman-Michaels Co.**, Chicago, Ill.  
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**Hunt Co., Inc. C. W.**, West New Brighton, New York City.  
**Lin-Belt Co.**, Philadelphia, Pa.  
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**Clay Products Association**, Chicago, Ill.  
**Dickey Clay Mfg. Co.**, W. S., Chattanooga, Tenn.  
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**Owensboro Sewer Pipe Co.**, Owensboro, Ky.  
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Republic Iron & Steel Co., Youngstown, O.  
Ryerson & Son, Inc., Jos. T., St. Louis and New York.  
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Lancaster Iron Works, Inc., Lancaster, Pa.  
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Lombard Iron Works & Supply Co., Augusta, Ga.  
New York Central Iron Works Co., Inc., Hagerstown, Md.  
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Pittsburgh-Des Moines Steel Co., Pittsburgh, Pa.  
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Chicago Bridge & Iron Works, Atlanta, Ga.  
Hartley Boiler Works, Montgomery, Ala.  
Lancaster Iron Works, Inc., Lancaster, Pa.  
Pittsburgh-Des Moines Steel Co., Pittsburgh, Pa.  
Walsh & Weidner Boiler Co., Chattanooga, Tenn.
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Dietrich Brothers, Baltimore, Md.  
Gulf States Steel Co., Birmingham, Ala.  
Jones & Laughlin Steel Corp., Pittsburgh, Pa.  
Oliver Iron & Steel Corp., Pittsburgh, Pa.  
Republic Iron & Steel Co., Youngstown, Ohio.  
Ryerson & Son, Inc., Jos. T., St. Louis and New York.  
Sheet Metal Mfg. Co., Youngstown, O.  
Tennessee Coal, Iron & Railroad Co., Birmingham, Ala.  
Union Drawn Steel Co., Beaver Falls, Pa.  
Virginia Bridge & Iron Co., Roanoke, Va.  
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- STEEL.** (Alloy.)  
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- STEEL.** (Cold Drawn.)  
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- STEEL.** (Cold Rolled.)  
Union Drawn Steel Co., Beaver Falls, Pa.
- STEEL.** (Screw-Free Cutting.)  
Union Drawn Steel Co., Beaver Falls, Pa.
- STEEL.** (Tool, High Speed.)  
Bethlehem Steel Co., Bethlehem, Pa.  
Ryerson & Son, Inc., Jos. T., St. Louis and New York.
- STEEL BUILDINGS.** (Designers and Builders.)  
American Bridge Co., New York, N. Y.  
Austin Co., The, Cleveland, Ohio.  
Belmont Iron Works, Philadelphia, Pa.  
Blaw-Knox Co., Pittsburgh, Pa.  
Champion Bridge Co., Wilmington, O.  
Chesapeake Iron Works, Baltimore, Md.  
Granger & Co., Inc., Louisville, Ky.  
McClintic-Marshall Co., Pittsburgh, Pa.  
Phoenix Iron Co., The, Phila., Pa.  
Pittsburgh-Des Moines Steel Co., Pittsburgh, Pa.  
Richmond Structural Steel Co., Richmond, Va.  
Snead Architectural Iron Works, Louisville, Ky.  
Tennessee Coal, Iron & Railroad Co., Birmingham, Ala.  
Van Dorn Iron Works Co., Cleveland, O.  
Virginia Bridge & Iron Co., Roanoke, Va.  
Walsh & Weidner Boiler Co., Chattanooga, Tenn.  
Wrenn & Co., O. Z., Charlotte, N. C.
- STRUCTURAL STEEL.** (Hot Galvanized.)  
Bessemer Galvanizing Works, Birmingham, Ala.
- SULPHUR.**  
Fresport Sulphur Co., Fresport, Texas.
- SULPHURIC ACID.**  
Davison Chemical Co., The, Baltimore, Md.  
Du Pont de Nemours & Co., Inc., E. I., Wilmington, Del.
- SUPER-HEATERS.** (Steam.)  
Babcock & Wilcox Co., The, New York.  
Power Specialty Co., New York, N. Y.
- SURVEYING INSTRUMENTS.**  
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- SWINGING ENGINES.**  
Dake Engine Co., Grand Haven, Mich.
- SWITCHBOARDS, SWITCHES, ETC.**  
General Electric Co., Schenectady, N. Y.  
Westinghouse Electric & Mfg. Co., E. Pittsburgh, Pa.
- SYSTEMS.** (Business.)  
Ernst & Ernst, New York, N. Y.
- SYSTEMS.** (Cost.)  
Loper & Co., Ralph E., Fall River, Mass.
- TABLETS.** (Brass and Bronze.)  
Walker & Son, Herbert T., Richmond, Va.
- TANKS.** (Air Compressor.)  
Air-Tight Steel Tank Co., Pittsburgh, Pa.  
Titusville Iron Works Co., Titusville, Pa.
- TANKS.** (Compartment Truck.)  
Heli Company, The, Milwaukee, Wis.
- TANKS.** (Elevated Steel.)  
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Chicago Bridge & Iron Works, Atlanta, Ga.  
Cole Mfg. Co., R. D., Newman, Ga.  
Pittsburgh-Des Moines Steel Co., Pittsburgh, Pa.  
Schofield's Iron Works, Macon, Ga.  
Virginia Bridge & Iron Co., Roanoke, Va.  
Youngstown Boiler & Tank Co., The, Youngstown, Ohio.
- TANKS.** (Elevated Wood.)  
Caldwell Co., Inc., W. E., Louisville, Ky.  
Davis & Son, G. M., Palatka, Fla.  
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- TANKS.** (Ford Truck Sprinklers.)  
Heli Co., The, Milwaukee, Wis.
- TANKS.** (Iron and Steel.)  
Air-Tight Steel Tank Co., Pittsburgh, Pa.  
American Bridge Co., New York, N. Y.  
American Water Softener Co., Phila., Pa.  
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Chicago Bridge & Iron Works, Atlanta, Ga.  
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Dixie Culvert & Metal Co., Atlanta, Ga.  
Downingtown Iron Works, Downingtown, Pa.  
Hamburg Boiler Works, Inc., Hamburg, Berks County, Pa.  
Hammond Iron Works, Warren, Pa.  
Hartley Boiler Works, Montgomery, Ala.  
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Hendrick Mfg. Co., Carbonale, Pa.  
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New York Central Iron Works Co., Inc., Hagerstown, Md.  
Petroleum Iron Works Co., Sharon, Pa.  
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Virginia Bridge & Iron Co., Roanoke, Va.  
Walsh & Weidner Boiler Co., Chattanooga, Tenn.  
Westinghouse Tractor Brake Co., Wilmerding, Pa.  
Youngstown Boiler & Tank Co., The, Youngstown, Ohio.
- TANKS.** (Seamless Steel.)  
National Tube Co., Pittsburgh, Pa.
- TANKS.** (Storage, Oil, etc.)  
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Downingtown Iron Works, Downingtown, Pa.  
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Pittsburgh-Des Moines Steel Co., Pittsburgh, Pa.  
Titusville Iron Works Co., Titusville, Pa.  
Youngstown Boiler & Tank Co., The, Youngstown, Ohio.
- TANKS.** (Wood.)  
Caldwell Co., Inc., W. E., Louisville, Ky.  
Davis & Son, G. M., Palatka, Fla.

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- Virginia Machinery & Well Co., Inc., Richmond, Va.  
 Woolford Wood Tank Mfg. Co., G. Paschall P. O., Philadelphia, Pa.
- TAX SPECIALISTS.**  
 Ernst & Ernst, New York, N. Y.
- TELEPHONE SERVICE.**  
 American Telephone & Telegraph Co.
- TELEPHONE SUPPLIES AND EQUIPMENT.**  
 Western Electric Co., New York, N. Y.
- TERRA COTTA.** (Ornamental.)  
 Atlanta Terra Cotta Co., Atlanta, Ga.
- TEXTILE MACHINERY.** (Cotton, Silk, Worsted, Jute.)  
 Saco-Lowell Shops, Boston, Mass.
- THERMOMETERS.** (Recording.)  
 American Schaeffer & Budenberg Corp., Brooklyn, N. Y.
- THRESHERS.**  
 Cardwell Machine Co., The, Richmond, Va.
- TILE.** (Cork Flooring.)  
 Bonded Floors Co., Inc., Philadelphia, Pa.
- TILE.** (Drain.)  
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- TILE.** (Floor, Wall, Mantel, etc.)  
 American Enamelled Brick & Tile Co., New York.
- TILE.** (Roof.)  
 American Cement Tile Mfg. Co., Pittsburgh, Pa.
- TILE.** (Rubber Flooring.)  
 Bonded Floors Co., Inc., Philadelphia, Pa.
- TILE.** (Segment Blocks.)  
 Dickey Clay Mfg. Co., W. S., Chattanooga, Tenn.
- TILE.** (Structural.)  
 Kingsport Brick Corp., Kingsport, Tenn.
- TILE.** (Concrete Roof.)  
 Crawfordville Machinery Co., Indianapolis, Ind.
- TILE RUBBER.**  
 New York Belting & Packing Co., New York, N. Y.
- TILE SLABS.**  
 American Cement Tile Mfg. Co., Pittsburgh, Pa.
- TIMBERS.** (Creosoted.)  
 American Creosote Works, Inc., New Orleans, La.
- TIME RECORDERS.**  
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- TIN AND TERNE PLATES.**  
 American Sheet & Tin Plate Co., Pittsburgh, Pa.
- TOBACCO MACHINERY.**  
 Cardwell Machine Co., The, Richmond, Va.
- TOOLS.** (Pneumatic.)  
 Chicago Pneumatic Tool Co., New York.
- TOWERS.** (Electric Transmission.)  
 American Bridge Co., New York, N. Y.
- TOWERS.** (Steel and Wood.)  
 Chattanooga Boiler & Tank Co., Chattanooga, Tenn.
- TRACTORS.** (Industrial.)  
 Atlas Car & Mfg. Co., The, Cleveland, O.
- TRAILERS.** (Industrial.)  
 Electric Wheel Co., Quincy, Ill.
- TRAILERS.** (Slow and High Speed.)  
 Eagle Wagon Works, The, Auburn, N. Y.
- TRAMWAYS.** (Wire Rope.)  
 American Steel & Wire Co., Balto., Md.
- TRANSFORMERS.**  
 Crocker-Wheeler Electric Manufacturing Co., Ampere, N. J.
- General Electric Co., Schenectady, N. Y.**  
**Piedmont Electric Co., Asheville, N. C.**  
**Westinghouse Electric & Mfg. Co., Pittsburgh, Pa.**
- TRANSMISSION TOWERS.** (Galvanized.)  
 Bessemer Galvanizing Works, Birmingham, Ala.
- TREADS AND RISERS.** (Pressed Steel Stairs.)  
 Woodbridge Ornamental Iron Co., Chicago, Ill.
- TRIM.** (Metal.)  
 Dahlstrom Metallic Door Co., Jamestown, N. Y.
- TROLLEYS.** (Overhead Tramway.)  
 Reading Chain & Block Corp., Reading, Pa.
- TROLLEY WHEELS.** (Self-Oiling.)  
 Moccasin Bushing Co., Chattanooga, Tenn.
- TRUCK BODIES.**  
 Hagy Wagon Co., Jas. A., Abingdon, Va.
- TRUCK CRANES.**  
 Orton & Steinbrenner Co., Chicago, Ill.
- TRUCKS.** (Dry Kiln.)  
 Moore Dry Kiln Co., Jacksonville, Fla.
- TRUCKS.** (Dump.)  
 Hydraulic Hoist Mfg. Co., St. Paul, Minn.
- TRUCKS.** (Electric. For Shops, Mills, etc.)  
 Elwell-Parker Electric Co., Cleveland, O.
- TRUCKS.** (Industrial.)  
 Atlas Car & Mfg. Co., The, Cleveland, O.
- TRUCKS.** (Motor.)  
 Ford Motor Co., Detroit, Mich.
- TRUCKS.** (Platform, Freight, Mill, Factory, etc.)  
 Edwards Mfg. Co., The, Cincinnati, O.
- TRUST COMPANIES.**  
 Maryland Trust Co., Baltimore, Md.
- TUBES.** (Boiler.)  
 Babcock & Wilcox Tube Co., New York.
- TUBE WELL STRAINERS.**  
 Cook, Inc., A. D., Lawrenceburg, Ind.
- TUBING.** (Brass and Copper.)  
 Baltimore Tube Co., Inc., Baltimore, Md.
- TUBING.** (Metal.)  
 Boiler Tube Co. of America, Pittsburgh.
- TUBING.** (Rubber.)  
 New York Belting & Packing Co., New York, N. Y.
- TUBING.** (Seamless Steel.)  
 Babcock & Wilcox Tube Co., New York.
- TURBINES.** (Hydraulic.)  
 Cramp & Sons Ship & Engine Building Co., The, Wm., Philadelphia, Pa.
- TURBINES.** (Steam.)  
 Allis-Chalmers Mfg. Co., Milwaukee, Wis.
- TURNABLES.**  
 American Bridge Co., New York, N. Y.
- TURNABLES.** (Portable for Motor Trucks.)  
 Blaw-Knox Co., Pittsburgh, Pa.
- UNIONS.**  
 Dart Mfg. Co., E. M., Providence, R. I.
- VALVES.**  
 Columbian Iron Works, Chattanooga, Tenn.
- VALVES.** (Acid-Proof.)  
 Lunkenheimer Co., The, Cincinnati, O.
- VALVES.** (Air and Vacuum.)  
 Simplex Valve & Meter Co., Phila., Pa.
- VALVES.** (Altitude.)  
 Simplex Valve & Meter Co., Phila., Pa.
- VALVES.** (Gate.)  
 Ludlow Valve Mfg. Co., The, Troy, N. Y.
- VALVES.** (Hydraulic.)  
 Cramp & Sons Ship & Engine Building Co., The, Wm., Philadelphia, Pa.
- VALVES.** (Shut-off.)  
 Michigan Valve & Foundry Co., Detroit, Mich.
- VAULTS.** (Bank and Safe Deposits.)  
 York Safe & Lock Co., York, Pa.
- VENTILATING SYSTEMS.**  
 Kirk & Blum Mfg. Co., The, Cincinnati, O.
- VENTILATORS.**  
 Royal Ventilator Co., Philadelphia, Pa.
- VENTILATORS.** (Door.)  
 Ventillouvre Co., The, Bridgeport, Conn.
- VENTILATORS.** (Roof.)  
 Burt Mfg. Co., The, Akron, Ohio.
- WARDROBES.** (Hygienic, School.)  
 Wilson Corp., The, J. G., New York.
- WASHERS.**  
 Marion Malleable Iron Works, Marion, Ind.
- WASHING MACHINERY.** (Sand and Gravel.)  
 Bonney Supply Co., Inc., Rochester, N. Y.
- WASTE RECLAIMING MACHINERY.**  
 Saco-Lowell Shops, Boston, Mass.
- WATCHMAN'S PORTABLE CLOCKS.**  
 Deter Watchclock Corp., Chicago, Ill.
- WATERPROOFING.** (For Brick, Concrete, Granite.)  
 Solvay Process Co., New York, N. Y.
- WATERPROOFING.** (Cement.)  
 Sullivan Co., The, Memphis, Tenn.
- WATER PURIFICATION.**  
 Roberts Filter Mfg. Co., Darby (Phila.), Pa.
- WATER - SOFTENING APPARATUS.** (Purifying.)  
 American Water Softener Co., Phila., Pa.
- WATER SUPPLY INSTALLATIONS.**  
 Layne & Bowler Co., Memphis, Tenn.
- WATERWORKS SUPPLIES AND APPLIANCES.**  
 American Cast Iron Pipe Co., Birmingham, Ala.
- WEIGHING AND MEASURING DEVICES.**  
 Hunt Co., Inc., C. W., West New Brighton, New York City.
- WELDING APPARATUS.** (Electric Arc.)  
 General Electric Co., Schenectady, N. Y.
- WELDING APPARATUS.** (Oxy-Acetylene.)  
 Imperial Brass Mfg. Co., Chicago, Ill.
- WELL CONTRACTORS.** (Oil, Artesian, etc.)  
 Cook, Inc., A. D., Lawrenceburg, Ind.
- Syndor Pump & Well Co., Inc., Richmond, Va.**  
**Virginia Machinery & Well Co., Inc., Richmond, Va.**
- WELL TOOLS AND SUPPLIES.**  
 Cook, Inc., A. D., Lawrenceburg, Ind.
- WHEELS.** (Pressed Steel.)  
 Mullins Body Corp., Salem, Ohio.
- WHEELS AND AXLES.**  
 Carnegie Steel Co., Pittsburgh, Pa.
- WINCHES.**  
 Construction Specialties Co., Inc., Long Island City, N. Y.
- WINDLASSES.**  
 Haddfield-Penfield Steel Co., Bucyrus, O.
- WINDOW FRAMES AND SASH.** (Metal.)  
 Trueman Steel Co., Youngstown, O.
- WINDOW GUARDS.** (Iron and Wire.)  
 Stewart Iron Works Co., Cincinnati, O.
- WINDOWS.** (Stained Glass.)  
 Biehl Fixture Mfg. Co., Norfolk, Va.
- WINDOWS.** (Steel, Basement, Casement.)  
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- WINDOWS.** (Steel Garage.)  
 Detroit Steel Products Co., Detroit, Mich.
- WINDOWS.** (Ventilating.)  
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- WIRE.** (Barbed Wire, etc.)  
 American Steel & Wire Co., Balto., Md.
- WIRE.** (Fence.)  
 Anchor Post Iron Works, New York, N. Y.
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- WIRE.** (Galvanized and Annealed.)  
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- WIRE.** (Telephone and Telegraph.)  
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- WIRE.** (Welding.)  
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- WIRE GUARDS.**  
 Stewart Iron Works Co., Cincinnati, O.
- WIRE LATH.**  
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- WIRE NETTING.**  
 Ludlow-Saylor Wire Co., St. Louis, Mo.
- WIRE ROPE.**  
 Broderick & Bascom Rope Co., St. Louis, Mo.
- WIRE ROPE CLIPS.**  
 American Steel & Wire Co., Balto., Md.
- WOOD PIPE.** (For Water, etc.)  
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- WOODWORKING MACHINERY.**  
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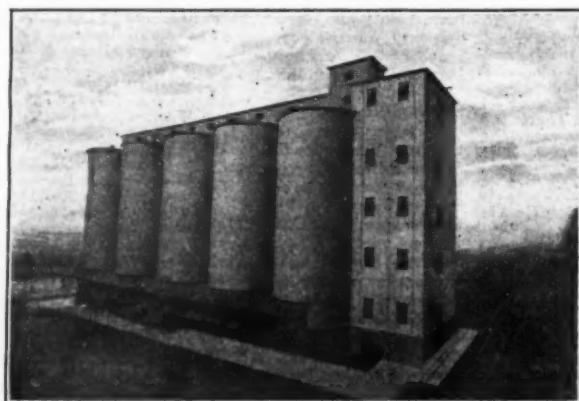
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